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THE
Modern Husbandman,
OR, THE
PRACTICE of FARMING:

VOL. I.

CONTAINING,

The Months of *January*, *February*, and *March*.

By WILLIAM ELLIS,
A Farmer, of *Little Gaddesden*, near *Hempstead*, in *Hertfordshire*.

LONDON:

Printed for, and Sold by T. OSBORNE, in *Gray's-Inn*, and M. COOPER, at the *Globe*, in *Pater-Noster Row*.
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THE
Modern Husbandman:
OR THE
PRACTICE of FARMING:

As it is now carried on by the moſt Accurate FARMERS in ſeveral Counties of ENGLAND.

For the Month of *January*.

Containing the following Particulars, *Viz.*

I. Why and where WHEAT-SEED may be ſown late.
II. Several new Ways of ſowing HOG-PEASE.
III. Several Ways of preparing and ſowing SWARD-GROUND with CORN.
IV. Various Ways of preparing Ground for ſowing it with BARLEY, *&c.*
V. An ACCOUNT of the Author's ſending a BANKING-PLOUGH to a Gentleman, for deſtroying the ANT-HILLS of 300 Acres in a Park.
VI. Alſo, of his ſending a Gentleman the THREE-WHEEL DRILL, and PULLEY-DRILL PLOUGH, with the new-invented moſt profitable HORSE-BREAK.
VII. The ſubtle METHOD a FARMER took to recover his ſtolen FOWLS.
VIII. Several more BITES of JOCKIES and DEALERS, expoſed, for preventing others to ſuffer the like Impoſitions.
IX. How a crafty Villain ſtole SHEEP, and ſold them at *Tring*.
X. How a FARMER loſt ſeveral SHEEP, by Feeding them on TURNEPS.
XI. How a Perſon made a great Profit, by tranſplanting TURNEPS.
XII. The COPY of a LETTER from a learned Gentleman, how to drain WET LANDS in the cheapeſt Manner, with the Author's ANSWER.

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THE

THE MODERN HUSBANDMAN

For the Month of *January*.

CHAP. I.

Of Sowing Wheat.

THE *good and bad Properties of Sowing* Wheat *in this Month.* — An old ſagacious *Chilturn* Farmer of my Acquaintance being aſked, why he did not ſow his Ground with Wheat in *December*, when it was prepared and made ready for it, anſwered, That a Fortnight or three Weeks hence would be much better, becauſe the Days would be longer, and the Weather come on warmer; for, if Wheat was ſown in *December*, or even in the Beginning of this Month, the Froſts would be apt to overtake it on the Sprout or Chip, and very likely ſpoil it. Therefore it would be much ſafer to ſow it towards the latter End of this Month, and then it will be as forward and ſafer than that ſown even in the Beginning of *December*: Hence I would obſerve, that, in caſe Wheat-ſeed is not ſown in *September*, *October*, or *November*, it is better to ſtay till *January* for the foregoing Reaſons, as well as thoſe that follow; for by this Time ſuch Wheat makes its firſt

Sprout: In *February* the Sun's Heat increaſing in a conſiderable Degree, it will, unleſs the Froſts are very ſevere indeed, come on apace. Yet none, I preſume, will be ſo ſilly, as to refuſe to ſow Wheat in *September*, *October*, and *November*, where they can conveniently do it, for the Sake of ſowing it in *December*, or this Month; for at beſt all thoſe, who ſow Wheat ſo late as in this Month, run a great Riſque of getting a plentiful Crop; for late ſown Wheat is liable to ſeveral Diſadvantages. One is, that the Froſt may keep it ſo long in the Ground before it vegetates or ſprouts, that it may rot. *Secondly*, If it has a good ſprouting or Chipping-Time, it may be yet killed by the Froſt. *Thirdly*, By late Sowing, it will be late in Bloom; and then the hot, dry Seaſon may dry the green Kernels ſo much, as to make them become no bigger than Oat-meal Grouts. *Fourthly*, The Honey-dews, that fall moſt in *June* and *July*, will be apt to cloſe and glew up the green Ear ſo tight, that the Kernels cannot enlarge themſelves, or ſo ſpot and poiſon the Straw, as to hinder the free Aſcent of the Sap, and then enſues a Sort of Blight. *Laſt of all*, Late ſown Wheat, by the Shortneſs of the Days, and the Length of the Nights, and the Rains that ſometimes fall in the latter End of *Auguſt*, and in *September*, often cauſes the Farmers a Difficulty to get the Wheat Home in thorough dry Order.

Where and why Wheat-ſeed *is ſown late.*—Wheat is ſeldom ſown ſo late as *November* in the *Middleſex* low wet Grounds, nor in the Vale of *Aylesbury*, and others, where they lie ſo wet and flat, that they are obliged to ſow their Wheat in Ridge-lands; I mean in Rood, Half-acre, and Acre-lands, that are always plowed one Way; but, where Turneps are ſown, it is the yearly Practice of many Farmers to ſow the ſame Ground with Wheat in *November*, *December*, *January*, or *February*, and ſometimes after Cole or Rape

Rape is eaten off, *&c.* But to be more particular, I ſhall mention ſeveral Reaſons for ſowing Wheat late: *Firſt*, In caſe a Farmer has a hot, rank, gravelly, or ſandy Soil, or a warm ſituated rich Loam, he may be timorous of ſowing ſuch Land with Wheat in *September* or *October*, leſt it grow Winter-proud, and ſo rank as to ſpend itſelf in too forward a Growth before the next Spring; for, if it ſhould do ſo, there will then conſequently enſue a poor Crop. *Secondly*, He may be forced to ſow his Wheat late, if he is reſolved to ſow it on a Clover, or St. *Foyne* Lay, that he could not conveniently get reduced into a fine Tilth before *November*, *December*, *January*, or *February*. *Thirdly*, It may, and frequently is the Caſe of many *Chilturn* Farmers, to ſow Part of his Wheat-crop, after his Turneps or Cole are eaten off, which is ſeldom done till ſome of theſe Months. And, *laſtly*, Where a Sward-Ground is plowed up to ſow Wheat, or where Wood has been grubbed up for the ſame Purpoſe, then, where a Perſon is reſolved to ſow Wheat as a firſt Crop on the ſame, it ſhould not be done till late, leſt ſuch a Crop grow too rank too ſoon, be laid flat, and rot on the Ground; which leads me to inſert the following Caſe, as it is publiſhed in the *Gentleman's Magazine* for *December* 1742. at Page 662, *viz.*

A new Method of cultivating Wheat *in* Ireland.—From the *Dublin* Society, *December* 15, 1742. Laſt *Thurſday* the Society examined the Claims of the Candidates for the Premium of ten Pounds, promiſed by them, to the Perſon who ſhould raiſe the greateſt Quantity of Wheat off one Plantation-Acre in one intire Piece in the Year 1742, when Mr. *Matthew Yelverton* of *Portland*, in *Lower Ormond*, and County of *Tipperary*, who had off one Plantation-Acre 668 Stone 11 Pounds, which, at 20 Stone to the Barrel, makes 33 Barrels,

8 Stone, and 11 Pounds, obtained the Prize. This being the greateſt Quantity ever known, in any Country, to be produced from the ſame Quantity of Land, perhaps, the Curious may deſire to know the Method uſed to raiſe this Crop.

The Field, on which Part of Mr. *Yelverton*'s Crop was raiſed, contained in all about ſix Acres; five of theſe were under Wheat, and the Sixth, being moiſter than the reſt, was ſown with Bere, which yielded him, from ten Stone of Seed, thirty-eight Barrels and one Peck of clean Bere; the other five Acres have each of them returned a Crop, in all Appearance equal.

The Soil was old Ground not tilled theſe thirty Years, of a looſe and mellow Earth inclining to Sand at Bottom; this was plowed an Inch in Depth in the Beginning of *Auguſt*, with Ploughs that carried Wings ten Inches broad at the near End, running taper, and ending in a Point as uſual, at the Fore-end of the Sock. Theſe Ploughs are in every other Reſpect the ſame as the old *Engliſh* Plough, whoſe Beam is not above eight Feet and a Half in Length, and were drawn by Oxen with Yokes.

The Sods, raiſed by this ſhallow Plowing, were burnt about the 8th of *Auguſt* 1741, and the Aſhes ſpread equally and with great Exactneſs over the Surface of the Ground; it then received another thin Plowing, and afterwards remained in that Condition from *Auguſt* the 16th, to *September* the 12th following; at that Time Mr. *Yelverton* ſet in his Harrows, with Iron-pins about ten Inches long, and harrowed the ſix Acres croſs the Ridges, which not only broke the Sods, but mixed the Mould and Aſhes thoroughly together.

He then obſerved, that the Soil was too rich and mellow for Wheat; and, upon that Account, determined to give it another Plowing, deeper than the former, to raiſe the Sand, which lay at no great Diſtance

tance from the Surface; this Reſolution was executed by *September* 22. The Sand he mixed with the Mould and Aſhes, by harrowing his Ground with the ſame weighty Harrows: As the Land was harrowing, and while it was looſe and mellow, he was ſowing it; and this laſt Article of Tillage was finiſhed, *October* 6: So that, from his entering on the Lay, to his putting Seed into the Ground, the whole Interval cannot exceed two Months. This is expeditious Tillage, and the Succeſs of it, perhaps, might be apt to tempt the Farmer to imitate it without Caution: But the Reader ſhould obſerve, that the Ground was rich, looſe, and mellow in its Nature, and ſandy at Bottom; that, beſides, the Sod was burned, and in ſo dry and favourable a Seaſon, that the Plowing and Burning ſix Acres did not take up eight Days.

All theſe Operations on the Ground were performed in dry Weather; and Mr. *Yelverton* thinks it of great Importance to the Farmer not to ſtir his Soil, when it is wet: One of thoſe ſix Acres was laid out in broad Ridges, ſixteen Feet over, from one Furrow to the other; in theſe he plowed in his Corn, and, where the Plough had left Opens in the Ground, he covered them carefully with the Spade; the reſt were thrown up in high Ridges, of eight Turns of the Plough to every Ridge: Between the Crops there was no Difference to Appearance from this Circumſtance; but, if they were covered equally with Corn, the broader Ridges muſt have the Advantage of the narrow ones, leſs Ground being loſt by Furrows.

Though he had excellent Wheat of his own Growth, Mr. *Yelverton* obſerved the uſual Caution of changing the Seed, and uſed the red *Engliſh* Wheat. He ſowed of it on the five Acres forty-nine Stone, four Pounds, ſomewhat leſs than half a Barrel to the Acre; and a good deal of this Succeſs he attributes to this Caution: Had he loaded his rich

rich Soil with a greater Quantity of Seed, he believes it would have ruined his Crop, and poſſibly, from the Richneſs of the Corn in Spring, even half a Barrel was too much.

The Seed was ſteeped the Evening before Sowing in a Pickle, by riddling hot dry Lime over it, as uſual. The Pickle was thus made: —Take Roach-Lime and Bay-Salt, put them together in a large Keeve, then throw in a ſufficient Quantity of Urine or Stale, ſtill ſtirring them, till they diſſolve the Salt, and ſlake the Lime; let them continue ſo twenty-four Hours, and then let the Liquor run out of the Keeve into another Veſſel for Uſe: The Corn ſhould remain from Night to Morning in this Pickle before Sowing. This Steep prevents the Smut, and deſtroys a pernicious Inſect, which he calls the *ſmall red Worm*, often deſtructive to Seed, eſpecially in rich old Grounds.

Though he had ſufficiently loaded both the broad and narrow Ridges, yet he was under a Neceſſity of mowing the five Acres, about *April* 15, by Reaſon of the Rankneſs: And the Field grew ſo exceſſive faſt, that he was obliged to reap the Top of it with Hooks about *May* 16, becauſe it was then too near ſhooting to uſe the Scythe, which might have gone too deep; but, had he neglected this, or had the Weather proved wet, the whole Crop would certainly have lodged and rotted. In favourable Seaſons, he has had, before this Time, from twenty to twenty-five Barrels off an Acre; and, if the Weather proves as good, he makes no Queſtion of having a Crop next Year equal to the Crop, which has occaſioned ſo much Wonder. By an original Account of the Sale of that very Crop off one Acre, the Number of Sacks are thirty-two; the Weight, after the Deduction of the Toll, and Loſs by Carriage, is ſix hundred and forty Stone, and the Sum Total, for which they were ſold at *Galway*, 21*l.* 4*s.* 11*d.* 2*q.*

The

The Author's Obſervations on the new Method of cultivating Wheat in Ireland. — This Caſe is a very particular one, and, in my humble Opinion, ought not to become a Standard-Rule for all Farmers to proceed by, in ſowing new broken up Virgin-Ground with Wheat: And, therefore, I ſhall here take Occaſion to make the following Obſervations: —— It was too great a Hazard to attempt bringing ſuch an old rich Sward-Ground into a Tilth, ſo late in the Year, as to begin Plowing it early in *Auguſt*, notwithſtanding the Deſign of burning the Sods into Aſhes, becauſe great Rains are often obſerved to fall apace about *Michaelmas*; and, if they had, it might have hindered Mr. *Yelverton* from getting his Ground into a ſufficient fine Tilth for ſowing it with Wheat: Alſo, although he had enjoyed a favourable dry Seaſon to plow, burn his Sods, and get his Ground into a fine Tilth; yet, if a long rainy Time had happened in warm Weather in the Spring, as the Account fairly remarks, the Wheat would have laid and rotted: Nor do I ſuppoſe his Topping it, if a wet hot Summer had followed, would have prevented its Falling and Damaging: Likewiſe, it is my humble Opinion, that Burning the Surface, for the Sake of its Aſhes, will not anſwer any Farmer's Profit in the End: For, though ſuch a Calcination may force on great Crops of Corn for three or four Years ſucceſſively, yet, when the Vertue of the Aſhes is exhauſted and worn out, What will be the Conſequence? Why, the ſame that happens to ſeveral Nickanock-aas in the Weſt of *England*, who, for the Sake of raiſing a Mulct of Money at once, give a Perſon Leave, for three or four Years, to plow up downy Lands, burn into Aſhes the Surface, and dreſs the Ground with the ſame, for raiſing great Crops of Corn, *&c.* and, when the three Years are expired, the Uſe of the ſame Land reverts to its Owner in ſuch a poor Condition, that, without extraordinary charge-

chargeable Means, attended with the beſt of Huſbandry, the Earth will produce wretched ſtarved Crops of Corn: Nay, I believe I may venture to ſay it, That it is probable, ſuch abuſed Land will never in his (the Owner's Time) recover the late rich Condition it was in before its Surface was plowed up and burnt to Aſhes; and the rather, if the Earth is very poor that lies next under ſuch a Surface: for, when it is ſo, it ſtands in Need of being rather thickened, than thinned, and deprived of its better Part; and, therefore, I ſhall here proceed to ſhew the Method made Uſe of in ſeveral Parts of *England*, for plowing up, and ſowing Sward-Ground with Corn. But, firſt, I muſt obſerve, that his Brine may do well enough, as the Wheat-Seed imbibes it but twelve Hours, and ſown directly afterwards: But this is likewiſe a hazardous Compoſition; for the Urine or Stale, as well as the Lime and Salt, is of ſuch a fiery Quality, that we in the Weſtern Part of *Hertfordſhire* dare not apply it; becauſe we have experienced the pernicious Effects of it, in eating off the thin Skin of the Wheat-Kernel, and ſpoiling the Crop by it. Therefore, in Caſe Mr. *Yelverton* had not had a favourable Opportunity of enjoying a dry Seaſon to ſow his ſteeped Wheat-Seed directly, (which none can aſſure themſelves of) What muſt have been the Conſequence? Why, the Seed, very probably, would have been ſpoiled. And why the Piſs did not do it as it was, I cannot account for no other Ways than that, perhaps, the alcalous Salts of the Lime may blunt the acid Salts of the Urine: For, as Dr. *Bury* obſerves, the Coupling of Male and Female Salts, of Salt and Lime, and properly Applying them in many Shapes of Husbandry, would greatly improve the Country; becauſe, Sea-Salt being very ſtrong and active, and the Salt of Lime balſamic and gentle, they will very well agree together in a Mixture. We, as I ſaid, in *Hertfordſhire*,

ſhire, are ſo apprehenſive of Damage, from the Uſe of Stale, that it is the general received Opinion of our beſt Farmers, that it is hazardous to uſe Urine, even though it is applied by ſprinkling it all over the Wheat-Seed the very ſame Morning it is ſown: And therefore the common Method is now to ſprinkle all over the Wheat-Seed Mudgel-hole or Dunghil-black Water, and immediately ſieve or riddle Lime over the ſame, for ſowing it the ſame Morning this is done: But this is a Way I do not commend; I follow it not, but make Uſe of a much better, and yet as ſafe a Method, which I intend to communicate to the Public hereafter, as being very little Trouble, and as little Charge, yet I believe ſufficiently efficacious againſt Smut and Worm; and, in particular, has this Conveniency attending it: — That, as the Day's Wheat-Seed is hereby prepared in a Quarter, or Half an Hour, at moſt, it is not in that Danger of being prevented ſowing, as that Seed ſteeped over, or in the preceding Night; and alſo, if Rain ſhould happen in the Sowing-time of it, and the Farmer be thereby obliged to carry ſome of this Seed Home with him, ſuch Seed will take no Harm, if it lies a Week or two out of the Ground; which is a Conveniency, that I am ſure cannot be ſaid of Mr. *Yelverton*'s ſteeped Seed; for, if that was to lie two or three Days unſown, I am of Opinion it would greatly ſuffer; and it often happens, through continued Rains, that ſteeped Wheat-Seed is forced to be kept a Week, or more, before it can be ſown in dry Weather.

Several Ways practiſed in England *to prepare and ſow new broken up Sward-Ground with Corn.* — Before I write the Particulars of this Propoſal, I ſhall here inſert what Mr. *Bradley* has advanced on this Head, at Page 100, in his Monthly Treatiſe for *May*, *viz.* Dr. *Bury* of *Compton* in *Devonſhire* tells us in a Letter, That the Burning of the Surface,

which is ſo much practiſed in his Country, is not only uſed in bad Lands, but by worſe Husbands; for it robs the Ground, which, he tells us, is not only an Obſervation of his, but alſo of his Grace the Archbiſhop of *Dublin*. If by bad Lands theſe great Men underſtand the Moory or Heath-Grounds, I cannot ſee what well can be done with the Turf or Peat (which is the Heathy Turf) unleſs it be burnt upon the Ground: For, though this is uſed for Firing by ſome poor People, yet, when there is any large Quantity of ſuch Land turned up, there will be more Turf or Peat, than can be well carried away. And again, as this Turf chiefly conſiſts of Roots, and other Parts of Vegetables, there muſt be in it many vegetable Salts, which, after it is burnt, will be fixed; though, indeed, we may ſay, they are only the Salts of ſuch Herbs and Plants as we ſeek to deſtroy, and are not proper for the Crop or Grain they ought to nouriſh. But, as we have obſerved before, that by Solution, and Expoſing to the Air, theſe alcaline Salts will yield the marine Salt; ſo the letting theſe Aſhes lie for a While expoſed to the Rain, Snow, and Air will bring them to that State: As Experience, and Dr. *Bury*, in his Letter, eſteems to be proper for the Improvement of decayed or infertile Land.——This I have partly anſwered, and ſhall further do it by what follows:—

The Bedfordſhire *Way to prepare and ſow new broken up Sward-Ground.*—When they intend to improve their wettiſh Land here, by converting their Sward into Plowed-land: They plow up the Surface as thin as poſſible, and then with Forks lay it in ſeveral Heaps for Burning it into Aſhes, which are ſpread all over the Land; and then, on one Plowing, they ſow and harrow in white Oats; becauſe their Plowed-Ground being not only naturally rich of itſelf, but alſo made more rich by the additional Help

Help of the fertile Aſhes: They ſow it for the firſt Crop with white Oats, in order to take off the furious Strength of ſuch Virgin-Earth, which, being plentifully ſtored with fruitful Salts, is hereby employed to nouriſh a Corn that requires the beſt of Ground to produce and maintain a thick ſown Crop of theſe white Oats, which will here grow very high in Flag, Stalk, and Ear, and yield very likely (as has been often proved on ſuch a rich Soil) ten Quarters off one Acre; for it is a common received Opinion, in *Hertfordſhire*, *Buckinghamſhire*, and *Bedfordſhire*, that no Corn peels and impoveriſhes Ground more than a full Crop of white Oats; and when ſuch a large Crop happens, it is generally reaped like Wheat, as being too long to be mowed. But, tho' this is one Reaſon for ſowing freſh Virgin-Earth with white Oats, it is not all; for there is another Reaſon to be aſſigned for this Piece of Huſbandry, and that is: As a Crop of Oats, while in Growth, is in common Appraiſement computed to be worth but forty Shillings an Acre, if a wet hot Summer ſucceeds their Sowing, they will be ſo great, as very likely to fall down, and perhaps rot, or otherwiſe ſpoil. If ſo, the Damage will not be ſo great, as if a Crop of Wheat ſuffered the ſame in their Place, which is generally appraiſed in its Growth at as much more as Oats. When the Crop of Oats is got off the Ground, they generally ſow the ſame Land with Wheat, and next Crop with Cole-ſeed, either to ſave Seed from it for making Oil, or to feed for the Butcher, for Cole-wort fattens Beaſts quick, and much; but this Practice is chiefly governed by the Nature of the Ground, as well as the Place, as I am going to ſhew.

The Buckinghamſhire *Way of preparing and ſowing Sward-Ground with* Corn. — Here they employ conſiderable Quantities of Sward-Ground thus: After they have wore out their Land, by getting off

it repeated Crops of Corn, they lay it down for Graſs again; which it will naturally produce of itſelf, by letting it lie uncultivated; and, after it has been under Graſs twelve or more Years, they plow it up again, and then, with their common Foot-plough, they give it only one Plowing pretty deep, and bury the Graſs-Turf or Surface ſo low, that they have a ſufficient Quantity of freſh Earth to harrow in and cover the Wheat-ſeed, and then ſell the Produce for the beſt of Wheat-ſeed; becauſe here are no Weeds to ſtain the Crop; and, as a further Improvement to ſuch a full Crop, their Seed is commonly of the largeſt Size, ſo that they commonly ſell for five, ſix, or ſeven Shillings more for a Sack or five Buſhels of ſuch excellent Seed, than they can for their common Wheat: And it is for this very Purpoſe, that their white and red *Lammas* Wheat-ſeed are ſent for to great Diſtances, as the beſt of Change and Improvement, and which I can furniſh to any Perſon in any Part of *Great-Britain*.

The Glouceſterſhire *Way of preparing and ſowing Sward-Land with* Corn. — In *Glouceſterſhire*, and ſome other Parts, Graſs-ground is hired at a great Rate; ſometimes for three Pounds an Acre a Year, to plow up and get one or more of Crops of Cole or Rape-ſeed on it, for grinding the Seed into a Powder, and then to preſs out the Oil for Lamp and other Uſes.

The Hertfordſhire *Way of preparing and ſowing Sward-Ground with* Corn. — In *Hertfordſhire* we act different from any I have wrote on; for here, when we have a Mind to turn Sward into Arable-ground, we give it one Plowing with our two-wheel pecked Share-plough, and with it turn the Turf ſo low down, that we find Mould enough to harrow in, and cover the Seed of black Oats for a firſt Crop, in order to lower the Strength of ſuch Virgin-Earth, and bring it into a proper Heart to bear

bear the next Time a Crop of Wheat; for, as our *Chilturn* Land does not afford ſo rich a Turf as that in the Iſle of *Ely*, *Buckinghamſhire*, and *Glouceſterſhire*, we are obliged to take Meaſures accordingly; and therefore black Oats will do better here, than white Oats, becauſe White draw ſuch Ground rather too much; then, as ſoon as the Oat-crop is got off, we give the Land two or three Plowings to get it into a fine Tilth, for ſowing it with Wheat the ſame Seaſon, and ſeldom fail of having a full Crop; and alſo of other Corn for five or ſix Years after, without the Help of any auxiliary Dreſſings or Manures; becauſe the buried Turf, (which is the richeſt Part of all Ground) will yield a moſt fertile Quality, not only to the Wheat-crop, but to ſeveral of the ſucceeding ones; but, if we were to harrow Wheat in on the new plowed up Meadow-ground, we ſhould juſtly fear it would be ſpoiled by being laid and rotted through the great Strength of the Virgin-Earth, eſpecially, as I ſaid, if the ſucceeding Summer be very wet and hot; for old Farmers have ſeen it often experienced, that Wheat, ſown even upon old Plowed-ground in the common Way, has, in ſuch a Manner, been almoſt ſpoiled, by growing ſo rank, that it fell before Harveſt; and then, if it does not rot, it will produce thin lean Oatmeal Kernels; that is, a great deal of Straw, and little Corn. But, to come nearer Mr. *Yelverton*'s Method, I ſhall make the following Obſervations, *viz.*

How a Buckinghamſhire *Farmer plowed up a Meadow, and ſowed it with* Wheat-Seed *for a firſt Crop.* — A Gentleman Farmer, Mr. *Dean*, living in his own Farm at *Nettleden*, that was a dry incloſed *Chilturn* one, plowed up a Meadow; and, on only one Plowing, harrowed in Wheat-ſeed, which came on with ſuch a forward rank Head, that tempted him to feed it in the Spring-Seaſon: This gave him a valuable Opportunity to enjoy a plentiful feeding

feeding Crop in a ſcarce Time, and a full reaping Crop at Harveſt, free of any extraordinary Charges; which, in my humble Opinion, where the Land is dry enough to admit of thus feeding ſuch a rank Crop with Sheep, is a far better Way than Mr. *Yelverton*'s Burning the Turf, and Mowing and Reaping off the Top of the Wheat in *April* or *May*, to check its too luxuriant Growth; and this, becauſe the Sheep by their Tread, and their ſtrong Urine, Stale, and Oilineſs of their Wool, tread the Earth on the Roots of the Wheat, and faſten it on them ſo well, as to cauſe the Stalks to ſtand the faſter in their After-growth, keep down the Worm, and diſcourage all other Inſects from attacking it; and above all, by ſuch Feeding in *January*, *February*, *March*, and *April*, the Rankneſs of the Wheat may be ſo efficaciouſly checked, as to be kept from running into any deſtructive Growth, as I am going farther to prove by the following Example.

How a Farmer double-dreſſed a Wheat-Crop *for feeding his Sheep.* — In our *Chilturn* incloſed Country of *Hertfordſhire*, a Farmer gave a Field of twelve Acres (that had been Clover one Year before) only one Plowing, and harrowed in Wheat-ſeed on the ſame, without any Manner of Dreſſing or Manure till *March* following; when he ſowed eighty Buſhels of *London* Soot on two Acres of the ſame Field, and but twenty Buſhels on every Acre of the reſt, as the uſual Quantity is. But, on theſe two Acres, he ſowed a double Quantity, in order to feed ſome fatting Sheep on the ſame late, when Turneps and all Green-field Meat were eaten up; and accordingly this extraordinary Dreſſing anſwered his Intention, by hurdling out the two Acres, and feeding his Sheep on the Wheat till the firſt of *May*, 1743. And tho' he fed it ſo late, yet, by Vertue of a rainy Seaſon that happened in the latter Part of *April*, the Wheat recovered, and went on in a flouriſhing Condition.

dition. But the next Example will ſhew the great Power that a rainy hot Summer has on Wheat-Crops.

How another Chilturn-*Farmer dreſſed a common Field of Wheat, fed his Sheep on the ſame to* May-*Day, and yet it fell down.*—The Land was common Plowed-ground, which he dunged well for a Wheat-Crop, and it produced a rank Wheat on the Ground in the Spring, having been before *Winter-proud*, as we call it, which forced the Farmer to eat it down with Sheep till *May*-Day, and then he let it take its Chance: Yet, for all ſuch late Feeding of it quite bare to the Ground, a hot wet Summer following, the Wheat ſprang up ſo faſt, and got into ſuch a Burthen, that it fell down before Harveſt, and yielded a poor Crop of Corn. There is, indeed, this Conveniency in ſowing Wheat on new broken up Meadow-Ground for a firſt Crop, that ſuch Wheat, if rightly managed, will produce the beſt of Seed-Wheat, becauſe it will be clean from all Manner of Trumpery; and, though the Kernels may be lean-bodied, yet it will ſell for an improved Price at Market, as being the choiceſt of Seed; and therefore Mr. *Yelverton*'s Management was very right, as to the getting Wheat for a firſt Crop on his new broken up Ground; and alſo in mowing it in *April*, and reaping the Top-Part in *May*: But, for all that, had a wet Summer enſued, his Crop of Wheat would have been of little Worth at Harveſt, as the Account obſerves; but he was fortunate in the Enjoyment of a dry Summer, elſe the *double Dreſſing* (if I may ſo term it) of the Aſhes, and the Richneſs of his Virgin-Earth, would have ſhewn the Difference.

How, with two Ploughs, a Farmer got his Meadow-ground ready at once for ſowing Wheat-Seed on the ſame.— This is alſo a different Method from any of the foregoing ones, and thought by the Occupier to exceed

exceed all other Ways: In Order to which, he plowed up the Surface of a *Chilturn*-Meadow with a two-wheel pecked Share-Plough, that had a Fin fixed on the right Side of the Share; and, as this Plough went firſt, a Foot-Plough immediately followed, and turned up the next Virgin-Mould on the Graſs-Turf, and ſo on till a Broad-land of
Feet in Breadth was finiſhed; and thus he proceeded till all the Field was done. This we call *Round* Work, becauſe the Ploughman begins in the Middle of ſo much Ground as he intends for one Broad-Land, leaving, as uſual, a Water-thorough on each Side of it. When all the Field is thus plowed, the Ploughman ſows his Wheat-Seed broad-caſt, and harrows it in; and in this Poſture it is to remain till Harveſt, unleſs the Wheat in the mean Time grows ſo rank, that the Farmer is obliged to mow it, feed it, or top it, as Mr. *Yelverton* did his. But there is another Way to do this Sort of Work much better, where a Meadow lies dry enough for the Purpoſe; and that is, it may be then performed by the Uſe of two Sorts of Turnriſe-Ploughs, *viz.* the two-wheel-Turnriſe or Turnwriſt-Plough, and the Foot Turnriſe-Plough. The firſt has a Socket broad Share, and the other a flat Square, or Chiſſel-Point fixed to a Socket-Share: The firſt goes foremoſt to cut the Turf, and lay it Bottom upward; the other throws up the next Mould, and covers all the Turfs, laying it thus ready for harrowing in the Wheat-Seed. Now the Advantage which accrues to the Farmer by the Uſe of theſe two Turnriſe-Ploughs is this: The Ploughman, by ſhifting a roundiſh Piece of Wood at every Turning at Land's End, and clapping the ſame every time on the contrary Side of the Plough, goes on plowing throughout the Field, without making any Henting, or Water-thoroughs; which gives him Leave to harrow the Wheat-Seed in an even Poſture, and more commodiouſly than it can be done

done in round Work, or the Broad-land Faſhion; for, in that, the Harrows are apt to pull down more Seed into the Thoroughs than there ought to be, and the Edges of the Land that join each Thorough are apt to lie too thin of Seed, to the Damage of the Crop. This laſt is an uſeful Obſervation, and ſuch a one, as, I dare preſume to ſay, no Author whatſoever has hitherto taken Notice of, though it is a very material one, and ought to be an important Motive for exciting many to make Uſe of one or other of thoſe valuable Turnriſe-ploughs, where there is Occaſion for them, as I have in my paſt, and intend in my future Works, to further explain. Theſe, or either of the Turnwriſt-ploughs, I furniſh to any Perſon.

The Excellency of the new Drill-Husbandry exemplified, by ſhewing how Meadow-ground may be plowed up, and Wheat-ſeed ſown thereon immediately after with the Three-wheel Drill-plough. —— Now I am come to my deſired Purpoſe, which is to ſhew the Excellency of the new-invented Three-wheel Drill-plough in ſowing Wheat-ſeed, either in new broken up Meadow-Ground, or in common old Plowed-Ground. In the Performance of the firſt, the two Sorts of Turnriſe-ploughs are firſt, and beſt to be made Uſe of, as I have ſhewn in the foregoing Article, for breaking up and turning the Sward upſide down, and throwing a Sufficiency of fine Mould all over the ſame, throughout the Field, in ſuch an even Poſture, that, if the Meadow was level before this Plowing, it may be left ſo after the two Turnriſe-ploughs have finiſhed their Work; and when the Field is thus got ready, free of all Water-thoroughs, or Furrows, it will (if the Land is not too ſtony, or too wet) lie even: But, if it ſhould not lie ſo ſmooth as is deſired, then the Harrows may be employed to reduce it into ſuch Order, that it may appear as fine as Garden-earth. When this is done, the next Thing is to ſow the Wheat-ſeed to the

greateſt Advantage: Which to do, I here propoſe the Uſe of the moſt excellent Plough of all others, that was ever invented for ſuch a Purpoſe, *viz.* the Three-wheel Drill-plough, which, by its double broad Boards, can eaſily perform its Work of making Drills in Perfection, provided there is a ſufficient Depth of Earth for it; and that Depth need not be much, for rather leſs than a Finger's Depth will be full enough; and that it may go ſo far, and no further, this Plough is made to penetrate the Earth to an Exactneſs, which plainly diſcovers the great Difference, and ſuperior Excellency of this Plough, to the uncertain Method made Uſe of by many of the ignorant, covetous Sort of People, who, rather than forſake the Uſe of their Grandfathers old Ploughs, and be at a ſmall Charge (for ſo it is, in Compariſon of its Value) for this, pretend to be Maſters of the Drill-Husbandry, when they ſow only Peaſe and Beans, by drawing out a Drill with either one of the Two-wheel *Hertfordſhire* pecked Share-ploughs, the Two-wheel Wood-chip Plough, the Two-wheel great Weſt-Country *Sull*, as they there call it, or the One-wheel Over, or Under-cheek-ploughs: But not one of theſe can make a regular Drill; for they will either go too deep, or too ſhallow, and always too broad; beſides, obliging the Plough-man to perform ſuch his Drill-work in the Round or Broad-land Faſhion, that is always attended (as I ſaid before) with the great Diſadvantage of leaving ſeveral Water or Henting Thoroughs in the Field, and therefore very diſagreeable to this new Drill-Husbandry. Whereas this excellent Three-wheel Drill-Plough (where the Land is dry, and fine enough to admit of its Uſe) will make a Thorough, or Drill, of an exact Depth and Breadth, for ſowing the Wheat-Seed therein, as I am going in the next Article to illuſtrate.

Sowing

Sowing Wheat-Seed with the Three-wheel Drill-Plough.—When a dry Ground is thus got ready for Sowing, the Three-wheel Drill-Plough is to have its Hopper charged with Wheat-Seed, and then drawn along for making a Drill, and dropping out the Seed, as the large third Wheel turns a little Wheel or Box about three Inches in Breadth, which, by its Notches or circular Cavities, lets out the Wheat perfectly regular, at equal Diſtances in the Drill; and when the Ploughman comes to the Land's End, he heaves up the Hinder-Part of this Plough by its two fixed ſhort Handles, ſo that, the third Wheel not touching the Ground in turning, no more Seed drops out till the Plough works again, which it is to do by making a Drill as cloſe to the laſt as poſſible; and it will exquiſitely well do it, by Vertue of its two broad Boards being faſtened very near together, which capacitates the Ploughman to plow the Field backwards and forwards, and lay the Drills as cloſe to one another as poſſibly can be done, without being obliged to round Work, or Sowing the Seed in Broad-lands, as I have before obſerved; and it is on this Account, that the *Kentiſh* Farmers ſhift the round longiſh Piece of Wood or Turnwriſt at every Land's End in the Turnriſe-Plough, becauſe it ſupplies the Uſe of a fixed double broad Board-Plough, which, like this, will plow a Field all one Way, without making any Henting-Thoroughs: A Deſcription, I think, ſufficient to inform a mean Capacity to underſtand the Nature of a Drill-Plough, if he knows any thing at all of a Plough; and, when the Hopper of this Drill-Plough is near emptied, another Supply of Wheat-Seed muſt be put into it, and ſo they muſt proceed till all the Field is done. Afterwards, in Caſe the Earth is not fine enough, to tumble in after the Seed is dropped into the Drill of itſelf, as it often is, then the whole Field ſhould be drawn over with light Harrows, and

then all the Work is finiſhed till Harveſt, unleſs between Whiles Weeds appear in ſuch Quantity, and of ſuch Sort, that requires the Hand-Weed-Hook to cut them down: But where Ground is uſed to be employed in the Drill-Husbandry, and at other Times to be ſown with Clover, there is no Danger of any great Damage from Weeds, becauſe both Drilling of Corn, and Sowing of Clover, not only deſtroys the Growth of old Weeds, but prevents the Breed of new ones. And thus is ſown any common arable Land, as well as new broken up Meadow-Ground, if it is not too much furniſhed with Stones, or lies too wet and heavy for the Three-Wheel-Drill to perform its Work: And it is certainly the beſt Way of all others to ſow Wheat-Seed and other Corn to Advantage, for the following Reaſons: *Firſt*, As to new broken up Meadow-Ground, that is plowed up firſt in the Manner I have before deſcribed: If ſuch Ground is ſown in *October*, *November*, or in this Month, with what Seed it drills, it will be ſo well covered from the Power of Froſts by Top-Earth, that it will eſcape Damage, when that Seed only harrowed in on level Ground may be killed by them. *Secondly*, In ſuch new broken up Ground the Wheat will conſequently grow ſo rank, as to fall down to the Owner's Loſs; but, by this Drilling Method, it is much prevented, becauſe it ſtands much firmer this Way, than in moſt others. And as to common Arable Land, that has for many Years, and is ſtill under the Plough; I ſay alſo, that ſuch Ground receives the greateſt Benefit, that any Ground can do, from a Plough, when it is ſown with Wheat-ſeed by the Three-wheel Drill-Plough; becauſe here likewiſe the Wheat is made to ſtand faſt, and the Earth that falls, or is tumbled down by the Harrows on the Seed in the Drills, becomes a Sort of Dreſſing by the Fall of Rains waſhing out the Salts of ſuch

Earth

Earth on the Seed. And it is the ſame with any Manure that may be ſown over the Wheat-ſeed, as ſoon as all the Field, or ſo much Ground that is ſown in one Day is done; for then, tho' ſome Mould will always fall in after the Plough into the Drill, yet there will be a Hollow left over the Seed, ſufficient to receive and lodge a commodious Quantity of Oil-cake Powder, Aſhes, Soot, Malt-duſt, or other Sort that may be ſown over the Seed, ready for the Rains to waſh in, and thus fertiliſe the Crop of Wheat to a prodigious Degree: And, if it ſhould not happen to rain for ſome Time after, ſuch Manure lies ſo ſheltered on the Wheat-ſeed, by the Edges of the Drill, that it cannot be blown off, as it is often done, in ſome other Forms of ſowing Grain, eſpecially, if, after ſuch Manure is ſown, the Harrows are drawn over all the Ground; for then the Powder has another Security, by the Earth, that the Harrows lodges on the Manure of the Drills. But there are ſo many other Advantages, attending Sowing Corn, by this Drill-Plough, that it would be too tedious to enumerate them here, and becauſe I have done it in great Part already, in ſome of my Monthly Works; therefore I ſhall proceed to my next Article, after a few Words more on the excellent Uſe of this Plough, *&c.* —— In my laſt Monthly Book for *December*, my Reader may perceive, how a Stranger and Foreigner, who lives Thouſands of Miles diſtant from *England*, has been wiſe enough to fall in Love with a Deſcription of this Three-wheel Drill-plough, and the Horſe-break, that accompanies it when it is uſed for Sowing Peaſe and Beans; which is enough, one would think, to excite and provoke Gentlemen, and Farmers, who live in *Great-Britain*, and whoſe Land is fitting for the Uſe of this Drill-plough, to do the ſame with all Expedition; becauſe, as I have in the ſame Book proved, if the *Americans*

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go on, as they have of late done, in cutting down Wood, ſowing vaſt Tracts of Land, with Wheat, and importing it into, and ſelling it in *Europe:* And likewiſe if *France*, and *Ireland*, by the late great Encouragement they have given to Tillage, increaſe in prodigious Crops of Grain, and tranſport it into *Spain*, *Italy*, and other Parts: What muſt become of the *Britiſh* Farmers, if they do not likewiſe increaſe their Wheat-crops, more than at preſent they do? Why, in Courſe, theſe Foreigners will get the Start of us, and, perhaps, not only be able to ſell cheaper, but alſo fruſtrate us of theſe beneficial Markets Abroad, that formerly the *Britiſh* Farmers reaped the greateſt Advantage from, when they were in Scarcity of Bread-corn, and we in Plenty at Home. Therefore, if Perſons, concerned in the Profit of Agriculture, will but open their Eyes, they may eaſily perceive the infinite Profit, that will ſurely accrue to this Nation, if they will prepare their Land, that is ſuitable for the Drill-Huſbandry, and ſow it with Seed, by this Three-wheel Drill-plough, the Pulley-plough, or any other Drill-plough that I ſhall hereafter recommend; they will not loſe every third or fourth Year, as Thouſands at this Time do, by letting their Ground lie fallow, or idle, at this Time; and, not only ſo, but ſuffer it to be over-run with Weeds, to the Deſtruction ſometimes of half the Crop of Grain; which are ſuch horrid Miſmanagements, that I am nettled at mentioning them; and yet, I am afraid, that all I can write, will not be ſufficient to cure this, not only private, or particular Evil, but, in very Deed, a moſt flagrant one to *Great-Britain*, in general. But, that I may be inſtrumental to promote my Country's Good in this one main Article, I hereby promiſe faithfully, to furniſh any Perſon with this excellent improving Three-wheel Drill-plough, or Pulley Drill-plough, or any other Drill-plough,

plough, Horſe-break, or other Inſtrument, for improving Huſbandry, at the very intrinſic Price it coſt me, and leave what they think fit to allow me for my Trouble, to their Pleaſure.

There are other Ways of employing new broken up Ground, than what I have here mentioned, which will be more proper to write of in *March*, than in this Month, for Reaſons I ſhall then aſſign; and wherein I ſhall ſhew, how a Gentleman thought it better Huſbandry, to give his Meadow-ground only one Plowing then, and ſow it with a Grain, that would anſwer better than the Sowing it with Wheat, and how he experienced the Truth of it. And likewiſe, in the next Month, I ſhall ſhew another Management, relating to the Plowing up Meadow-Ground, and improving it with a particular Grain, thought to be more profitable than Wheat, for a firſt Crop.

CHAP. II.

The Uſe and Benefit of Turneps

THE Uſe of Turneps in this Month. — Now Turneps prove their great Uſefulneſs, as being in the greateſt Eſteem in this Month, of any in the whole Year, for their ſeveral valuable Qualities, in fatting Oxen and Weather-Sheep; feeding Ewes, for ſuckling Houſe and Graſs-Lambs; Cows under Milk, Swine in the Field and Houſe, and Horſes with Manger-meat, which the yellow, or carroty Turneps will excellently well do; ſupplying Markets with the beſt of Culinary Ware, and for feeding Store-Sheep, when all other Field-meat is gone, as being eat up, or cut off, by the moſt ſevere Froſts, that commonly reign ſharpeſt in this Month of all

all others, even to the Freezing the Pot of Liquor by the Fire-ſide; the Snows alſo now frequently fall in ſuch Abundance, as to hinder Cattle coming at any other Abroad, than this, or the moſt ſerviceable Cole-wort, that not only anſwers the great Ends of fatting and ſubſiſting Oxen, Cows, Sheep, Hogs, and Horſes, *&c.* but, at the ſame Time, returns the beſt of Dreſſing. One Acre of well-planted Turneps will fat eight middling-ſized Weather-ſheep, or feed ſix Couples of Ewes and Lambs, with good Management; that is, if Racks of Hay, or Pea-ſtraw, ſtand conſtantly in the Field, for the Sheep to brouſe on at Pleaſure; for this dry Meat ſecures them from the Rot, from the Red-water, and from Hoving; Misfortunes incident to all Turnep-feeding Sheep, and that often prove fatal to Thouſands of thoſe that are deprived of ſuch a ſalubrious Antidote; and, for this Purpoſe, ſome are ſo careful, as to have their Meat-Racks thinly thatched over; others have them covered with thin Boards, to keep their Meat dry, for then it does the Sheep twice the Service of wet Meat. Others will be at the Charge of cloſe-made rodded Hurdles, inſtead of open Hurdles, for keeping Sheep from being pinched by Drift-Rains, and piercing Winds; which, with timely Shiftings of the Sheep into freſh Parcels, will, in dry Land, fat them with great Expedition. When Oxen, Heifers, or dry Cows, are feeding on Turneps in the Field, for Fatting, great Care ſhould be taken that they are not choaked; and, if a Piece of Turnep ſticks in their Throat, the quickeſt Way is to thruſt a Hand in, and ſhove it down. Others will keep a thick, ſtiff Piece of Rope conſtantly with them in the Field, for the like Purpoſe: Others think, a dried Bull's Pizzle exceeds all other Inventions, for ſhoving down a Piece of Turnep, that may ſtick by the Way, and ſo perhaps may deliver the Beaſt from being

being choaked, as it has often happened. Some Farmers, again, will draw the Turneps, and feed and fat an Ox, Heifer, or Cow in the Houſe, by giving it chopped Turneps in the Trough, and Hay in a Rack, and then ſuch Ox, Heifer, or Cow, never will drink Water, becauſe the Turnep, of itſelf, is ſuch an aqueous Root, as very well ſupplies it: But there muſt be a good Parcel of Turneps employed in fatting of one of theſe horned Cattle, for ſome will eat half an Acre, others a whole Acre, according to their Bigneſs, Youth, and Degree of Fatneſs beſtowed on them. In *Norfolk*, and *Suffolk*, there is more, I believe, of this Sort of Huſbandry performed, than in any ten Counties beſides; for of this, and Sowing of Barley, for fattening of Geeſe, and Turkies, or rather for bringing them up, for driving them to a *London* Market, their Farmers chiefly make their Rents, elſe much of their poor ſandy Land would turn to little Account, as I have been an Eye-witneſs of. Milched Cows have been fed all Day on Turneps with Sheep, and at Night kept in the Farm-yard with Straw, which has greatly ſupplied the Want of Grains, and made them milk well. Others will draw Turneps every other Day, cut them ſmall, and give them with Grains, Chaff, and Hay, and then ſuch a Cow will milk in Perfection. —— And, for feeding Hogs with this univerſal beneficial Root, it is the common Practice of many Farmers and People, at this Time, to cut and boil Turneps in Water till they become ſoft; and then they put Turneps and Liquor together into a Tub, and mix either Bran or Pollard with them. Thus they compoſe a cheap and fattening Food, that, when given in due Order to Store-Hogs, Porkers, Baconers, or to a Sow with Pigs, will feed and fatten them a great Pace. At *Newton-Longfield*, near *Windſor*, in *Buckinghamſhire*, their heavy Land lies ſo wet, that they are forced to plow it al-

ways one Way, to lie in a high Ridge Form or Shape: Now, as ſuch wet heavy Land will not admit of feeding Turneps on it, they never ſow them, but are forced to buy what they uſe, of People carrying them about at Six-pence a Buſhel, which they can pare very thin, and boil to a Maſh. This, with a Mixture of Grains, feeds and fats their Swine, till they give them Peaſe or Beans for the ſame Purpoſe.

How ſome Farmers loſe Lambs, by feeding Ewes on Turneps. — This Misfortune is generally cauſed on two Accounts: One through Neceſſity, and the other through Ignorance. When by Neceſſity, for Want of other Food than the Turnep, it is the leſſer Fault. I have known ſeveral, even old Farmers, ſuffer very much by theſe Means; but, of their great Numbers, I ſhall mention but one in Particular, in my Neighbourhood; who though he had been concerned in Huſbandry-Affairs many Years, and ſuffered before on this Account, yet in the Year 1742, having a good Crop of Turneps, would keep his Breeding-Ewes among them, till they lambed, partly out of Neceſſity, and partly out of Obſtinacy, for he would ſtill venture on, and run the Riſque of the Iſſue; but the Conſequence proved ſufficiently prejudicial, to teach him better Management hereafter; for ſome of his Lambs were hawled away from the Ewes Bodies, by meer Violence, and others forced to be cut away by Piece-meal; which, beſides the Loſs of the Lambs, cauſed likewiſe the Death of ſome of the Ewes. I therefore here offer this Caution to all Turnep and Cole-Farmers, that they take their Breeding-Ewes out of the Turnep and Cole-Field, about a Month before their Lambing-Time, leſt the Lambs and Ewes be loſt, by letting the Dams feed too long on ſuch nouriſhing Food; for the groſs fattening Turnep-Root, and quick-feed Cole or Rape-head, is very apt to cauſe the Lamb to grow

grow too big in the Belly of the Ewe, for Lambing without Help; which cannot be done, without extreme Hazard of both their Lives; which Hazard would probably be prevented in a great Meaſure, if he had taken the Ewes out of the Turnep-Field, in due Time, and put them in his Meadow, and fed them now and then with Hay, *&c.* But this would not go down with him, becauſe he reckoned, that Feeding the Sheep in his Meadow, and with Hay, was the greater Charge, altho' the Charge, perhaps, might have been upon a Par at the ſame Time with the Feed of Turneps; for, the more Hay the Ewe eats, the more Turneps there would have been for his Wether Sheep, Cows, or Hogs. This is ſuch an uncommon Caution, that I never ſaw it publiſhed in any Works of Huſbandry, yet what a Perſon ought to expect meeting with in ſeveral; for it is of great Importance, eſpecially in that Treatiſe publiſhed under the Title of the *Shepherd's Kalendar*, which is certainly wrote by a Perſon as learned in Aſtrology, as he was ignorant in Huſbandry; and it is ſo far from improving the Reader in the Management of the moſt ſerviceable and profitable Beaſt in the World, a Sheep, that, if I miſtake not, there are not above ſix Sides of Paper in this Book, that directly relate to the Ordering and Improving of this moſt uſeful Creature; notwithſtanding, it is ſo neceſſary and ſuperior a Subject, that, except that of Bread-Corn, it has hardly its Equal in all the Syſtem of Huſbandry. The Deficiency, therefore, of this Book, and the infinite Value that Sheep are of to this Nation, beyond any other in the whole World, influences me to ſuch a Reſolution (that pleaſe God to give me an Opportunity) I am reſolved to write a diſtinct Treatiſe on this Matter: And, as I have ſeveral Times travelled in the *Weſt*, and been in ſome Parts of the *North*, as well as in the *Eaſt* and *South*, I

hope to furniſh my Country with thoſe ſerviceable Directions for preſerving and increaſing Sheep, that will redound not a little to the Riches of this Nation.

How Ground may be improved by plowing in Turneps.—I never knew Turneps ſowed directly for this Purpoſe; but this I have to write, that in Caſe a violent hard Froſt happens, ſuch as was in 1739, which froze many Crops of Turneps ſo hard, that, when it thawed, they began to rot and ſpoil, and unfit for feeding Sheep with, or any other Cattle: I ſay, if it ſhould ſo happen again, ſuch Turneps would do great Service to the Land, if they were plowed into the Ground before they were too much rotted. But, if Turneps are ſuffered to ſprout before they are plowed in, they will do the Land but little Good, nor will they do the more Service, if they are plowed in whole; but will do the moſt of all, if they are firſt bitten, or begin to rot, for then they will directly decay, and mix with the Earth, to the great Enriching of the next Crop of Grain.

How Turneps *have been given to Deer for their Winter Food, but did not anſwer the Purpoſe.*—There have many Bucks, and barren Does, been fatted with Turneps, as a chief Food; but then ſuch Turneps muſt be fed on a dry Earth, as a ſandy, chalky, or gravelly Sort; for if ſuch an Attempt was to be made in a contrary clayey, or wet loamy Soil, it would be to little Purpoſe, becauſe the Feet of ſuch Deer, in a clammy, ſoft Ground, would ſo daub the Turneps, as to render them very unwholſome to this Creature, in bringing on Sickneſs, Red-water, or Rot, *&c.* in them. I knew a Gentleman make the following Trial: Being Owner of a large Park, wherein were kept both Red and Fallow Deer, and, having ſomewhere eaten Part of ſome Veniſon that was moſtly fatted on Turneps,

Turneps, he had ſome of his incloſed Fields ſown, in order to feed his Deer with them. Accordingly, he had them pulled up, brought into his Park, and laid on the Meadow-Ground; but this did not anſwer his Purpoſe, for the Beaſts ſoon trampled on them, and, rolling them about, ſo daubed and dirtied the Turneps, that the Deer, in a little Time, became cloyed of their new Food; for the Soil of this Park was a reddiſh Clay, that lay very near the Surface; beſides which, the Turneps rotted the young Deer, though they fed the old ones well, becauſe the Young fed moſtly on the Leaves and ſmall Roots of the Turneps; but this Gentleman wanted the Turneps for his Sheep, which, by drawing for Feeding the Deer, impoveriſhed the Ground, *&c.*

How Turneps *may be given to Deer to Advantage*— In Caſe the Soil of a Park is of a ſandy, chalky, or gravelly Nature, and the Owner thinks fit to have ſome of it plowed up, and ſowed with Turnep-ſeed, it may be fenced in either by moveable Panes of Pales, that ſtand on wooden Feet on the Top of the Ground, or by fixed Rails to keep the Deer from them: Here then they may be fed on the Turneps, as they ſtand in their Place of Growth: Or, they may be drawn and given whole on Graſs-ground, or, as I ſaid, they may be ſown in an incloſed Field, pulled up and given to the Deer in the Park, with good Hay to eat at their Pleaſure, elſe this watery Root (eſpecially in long wet Seaſons) may, and very likely will, create the Red-water, or bring on the Rot, for a Deer comes very near the Nature of a Sheep, and is therefore incident to ſeveral of the ſame Diſtempers they are: Or the Turneps, when ſo drawn, may be waſhed, ſliced, and given the Deer in long large Troughs laid on the Ground near others, wherein cut, or other Chaff, or Peaſe, or Horſe-beans are put;

put; for the Turnep requires a dry Antidote, as being ſo ſucculent and juicy a Plant, that, even where Hay is given to any Beaſts that feed on it, they have no Need to drink Water. There is a vaſt Difference in Soils, as they relate to the good and ill Feeding of Deer. I know a Park, whoſe Soil is of the chalky Sort, and yields ſo ſweet a Graſs, as to cauſe the Veniſon, fed on the ſame, to exceed moſt others for Delicacy of Taſte and Wholſomeneſs. But, of this, I intend to write a large Account hereafter, for ſhewing the cheapeſt and healthieſt Way of keeping theſe excellent Creatures, and thereby to encourage their Breeding more than is at preſent done; for I am very ſenſible, that the Thoughts of theſe Creatures being more chargeable, than profitable, has intimidated even many of thoſe from undertaking to keep them, who have good Conveniencies for the Purpoſe. And, although a Turnep is generally allowed to be a rank Food, and accordingly will create a rank Fleſh in any Beaſt fed on them, yet, when Turneps are of the ſweet Sort (particularly that called the *carroty* or *yellow* Turnep) and are fed by the Deer while they are young, in ſuch a dry pure Soil, with fine Upland Hay, there will not be perceived much Difference between ſuch Veniſon, and that fed on Natural Graſs.

How ſerviceable the Turnep *is for Feeding* Pheaſants, Buſtards, *and other Fowl.*— This valuable Root, that is ſerviceable for many Purpoſes, deſerves ſome Account of its Uſefulneſs for Feeding Fowls, as well as Man and Beaſt; particularly the Pheaſant and Buſtard, two of the largeſt and beſt Sort of wild Fowls this Kingdom affords, and which, when bred tame, may be brought up ſo as to feed on the raw Turnep great Part of the Winter, and thus become Birds of little Charge to their Keepers, with the Help of a little other Meat, as I have

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in my Monthly Book for *July*, at Page 93, given an ample Account of: Therefore thoſe Perſons, who are Maſters of a Conveniency for breeding theſe delicate Birds, need not be under the common Apprehenſion that theſe require ſo much Trouble and Coſt, that it is not worth While for any to attempt the propagating and keeping them; for I have made it plainly appear, there is no Neceſſity to be at any extraordinary Charge or Trouble on this Account: On the Contrary, I have there proved it to be one of the profitableſt Things that can be done by a Farmer, if rightly managed; and, that I may be inſtrumental towards increaſing the Breed of theſe majeſtic Fowls, I intend, hereafter, to give an Account, how Perſons may breed them in private Houſes, as I have done the Pheaſant, in Farm-Yards, and Apartments; for, almoſt in all Parts of this Nation, the Turnep may be had, and all other Meat neceſſary for Breeding and Feeding theſe admirable Creatures, that would ſoon be done in Plenty, if Perſons would take my Advice in their Management; and therefore, to what I have already wrote in my former Works, I intend to make a large Addition on this Subject in ſome of my future Writings.

The Way that ſome Farmers take to ſecure their Sheep from the Violence of Winds, and Drift-Rains, in open Fields, while they feed on Turneps.— In the *Weſt* Country, they for the moſt Part make Uſe of the cloſe-rodded Hurdle for this Purpoſe, and then there needs no other Device. But in *Buckinghamſhire* and *Hertfordſhire*, and in many other Parts, they make Uſe of no other than the open five-ſloated Hurdle, which, though it keeps Sheep in a Pen or Fold very ſecure from breaking out, does not keep them from the Violence of Winds or Drift-Rains: Therefore, where their Ground lies high and very bleak in open Fields, ſome draw Wheat-

ſtraw

ſtraw Bands through theſe open Hurdles, and ſet one Row of them along the Middle of a Fold, that the Sheep may feed and lie on either Side of it, according as the Wind blows; which, indeed, is a very ſerviceable Invention, for cauſing the Turneps to do the Sheep much more Good, then when they are forced to eat them in ſuch a Situation, without any Shelter. Others draw ſuch Hurdles with Pea-ſtraw Bands; but then they muſt be daubed with ſomething that is of a nauſeous Taſte, as with Mudgel-hole or Soot-water, or with Mud, or ſuch like; otherwiſe the Sheep will pull it out with their Teeth.

How a Perſon made the greateſt Profit of a Field of Turneps *by tranſplanting ſome, and letting others remain for Seed.*— As a Turnep runs up a Seed-ſtalk ſometimes near ſeven Feet high, it is certainly a very great Peeler of the Earth, by drawing out a large Fund of its Goodneſs to nouriſh ſuch a Burthen; and, therefore, whoever hopes to enjoy a great Quantity of this Seed, ſhould take Care to enrich the Ground firſt with Dung, or Manure, in a plentiful Manner, and, by ſeveral Plowings, bring it into a fine Tilth. A Perſon in *Hertfordſhire*, who makes it his Buſineſs to get and ſell a great Deal of Turnep-ſeed every Year, took this Method once to obtain it: Having ſaved a Three-acre Field of the green round Sort of Turneps, wholly for Seed, in this Month, he employed ſeveral Hands to pull ſome up where they were too thick, and tranſplant them in ſeveral Places that lay vacant, and where the Turneps miſſed taking; by which Means the Field was ſoon compleatly furniſhed at a ſmall Expence, for, at the ſame Time, all the reſt of the Turneps remained where the Houghers left them. Now thoſe Turneps, that were thus drawn for Tranſplanting, had only their Out-ſide Leaves cut off, but the young ſeedy, or middle

Cabbage

Cabbage Part of the Head was left untouched, for, if this had been cut off, it would have ſpoiled the Seed; and he was careful to tranſplant this Sort before any other, becauſe the green, round Turnep is preferred by many for its hardy Nature, and lying couchant in the Earth, where it thus reſiſts Froſts and Wets better than all others, and alſo for its ſhallow Rooting, and, above all, for its ſweet Taſte.

How a Farmer in Bedfordſhire *tranſplanted his Field of* Turneps *to a great Advantage.*— It was on the Eleventh Day of *January*, that I ſaw a Farmer tranſplanting his biggeſt green Tankard Turneps in about half an Acre of Ground, that had been Wood Ground about three Years before, ſo that the Earth was in ſpecial good Heart; and therefore he drew the largeſt Turneps he could, out of his Field, where they were ſown with a Deſign to feed his Sheep with them. For this Purpoſe, after the Ground was firſt plowed, and got into a fine Tilth, he dug Trenches with a Spade, and ſet his Turneps in the ſame with their green Heads on, which now began to ſhew their Seed-ſtalks; and leaving only the green Part above Ground, he ſet his Turneps in Rows eighteen Inches wide from each other, and the Turneps at the ſame Diſtance in Rows. Here the Farmer made a Difference, between ſetting Turneps, or tranſplanting them for Seed in this Month, and ſetting or tranſplanting them in *November* or *December*. If they had been tranſplanted in either of theſe Months before the Seedling-Head had appeared, he would have cut off almoſt all the green Head; but, when he tranſplanted his Turneps in this Month, he cut off none of the Seedling-Head; and, if he left any of the broad Leaves on, he knew they would die of Courſe, and the Seedling-Part only grow on and flouriſh; he kept the Turneps clean houghed after-

wards, and, for three Weeks before the Seed-ſtalks were cut down, he kept a Boy to watch and keep off the Birds, who are exceeding Lovers of this Seed, and muſt be diligently watched, if they are prevented hurting it. In this Month, 1742, having a Piece of freſh Ground, I tranſplanted ſome of my capital Turneps out of the Sheep-field into this, but had not ſo bulky a Crop, as ſometimes happens in a wet Summer; for the Rankneſs of the Seed-ſtalks, and the great Quantity of Seed, are moſtly governed by warm, wet Weather, whereas the Spring and Summer, 1742, proved a very dry one.

Sowing Wheat after Turneps.— This is ſeldom done after this Month; if it is, the Wheat will be late in a green Growth, and thereby liable to receive ſuch Quantities of Honey-dews on its Ears and Stalks, as will, as it were, glew up the former, and ſpot and decay the latter, ſo as to hinder the free Circulation of the Sap, and conſequently a full-grown Wheat Ear, beſides expoſing the Corn to the Hazard of ſhort Days and long Nights, which may, in Caſe of a rainy Harveſt, prevent its timely Drying. There are many Crops of Turneps made an End of Eating in this Month, which tempts many *Chilturn* Farmers to give ſuch Ground only one Plowing in Broad-lands, and harrow in Wheat-ſeed, without any further Dreſſing or Manure done to it: But he that ſpreads ſuch a Field over with rotten Dung as ſoon as the Turneps are eaten off, and then plows and ſows the Wheat-ſeed, ſtands far the greater Chance of enjoying a plentiful Crop at Harveſt. Others will plow ſuch Ground, harrow in the Wheat-ſeed, and ſpread their rotten Dung all over the Top of ſuch a Field for the Rain to waſh in its Goodneſs, for preventing the Roots from too great Drought, and the Ground from the too violent Exhalations of the Sun; but then ſuch Dung ſhould be moſt carefully ſaved from being ſtained by

the

the Kernels of Oats and Barley, *&c.* for if Cattle, that make ſuch Dung, feed on Oat or Barley Straw, the Dung will be infallibly ſtained by the ſame. and then, at Harveſt, the Wheat will be damaged with a Mixture of Oats, or Barley, that cannot be ſeparated from it. Others, who ſow ſuch Turnep-ground with Wheat-ſeed, will do nothing elſe to it, than in *February*, or *March*, to ſow over all of it Soot, Oil-cake Powder, or Lime in Powder, *&c.* to great Advantage, if wet Weather timely follows.

How a Farmer ſowed Wheat on Turnep-*Ground in this Month, with the double* Hertfordſhire *Plough.*— This was done on the Twenty-eighth Day, in an incloſed gravelly, loamy Field, as ſoon as the Turneps had been eaten off with Sheep; for then the Farmer, with the double *Hertfordſhire* Plough, plowed up the Ground into Broad-lands, the ſame Way it laſt lay in, by which he diſpatched a great deal of Work in a little Time, while fair Weather laſted; and then he immediately harrowed in his Wheat-ſeed. Thus he thought he enjoyed a greater Conveniency in the Uſe of the double Plough, than a ſingle Plough; becauſe the double one plows narrower Thoroughs than the common ſingle Plough does, which breaks the Ground finer, and is certainly much better for the increaſing the Crop of Wheat. But there is a further Uſe of the double Plough in ſowing of Wheat-ſeed, as I am going to ſhew.

The further Uſe of the double Plough in ſowing Wheat-ſeed.— If a Crop of Turneps grows in the *Chilturn* Country, on a moiſt loamy Land, ſo that it be not ſo wet as to require Wheat to be ſown in three or four-bout Lands, the double Plough will do this excellently well; but there are two Sorts of double Ploughs, in reſpect of the wide or narrow Placing of the broad Board. When it is employed

in plowing broad Lands, the broad Board is fixed wider than the double Plough is, that is deſigned to plow two-bout Lands; and it is this laſt, I am here writing of, for plowing ſuch Ground, to make it lie drier and ſweeter than when it is plowed by a ſingle or double Plough in Broad-lands: And, indeed, it is ſo good a Way to ſow Wheat-ſeed in two-bout Lands or Ridges, that, at this Time, I know a great Perſon who ſows almoſt all his Wheat-ſeed at this, and other Times of the Year, in no other Form, than in theſe two-bout Lands, with the narrow double Plough, although his incloſed Fields are for the moſt Part a gravelly, loamy Soil, and lie very dry; either of which double Ploughs I furniſh any Perſon with to any Parts of *Great-Britain*, or elſe-where.

How an incloſed Field, conſiſting of ſeveral Sorts of Earth, was plowed with a double Plough, and ſowed with Wheat in this Month.— A Field that was ſown with Turneps, and took ſo well as to become an excellent Crop, encouraged the Farmer to ſow it with Wheat in this Month. Now this Field was compoſed of three Sorts of Earth; a Gravel, a Chalk, and a loamy Mould. The Chalk and Mould were ſo mixed together, that in *Hertfordſhire* we call it a *Maumy Earth*, and the gravelly Part was intire of itſelf. But, notwithſtanding theſe Diverſities of Soil in one Field, the Ground in general, by a good Houghing of the Turneps, and the great and full Cover of their Leaves, became very hollow; and therefore the Farmer ventured to ſow this Field with Wheat as ſoon as the Turneps were eaten off, and that by the double Plough, which, at two Bouts, made a compleat four-thorough Stitch, by turning four very narrow Thoroughs or Furrows of Earth on the Wheat-ſeed, which is one great Perfection of this valuable Plough; for, by this Plough, the Wheat is not in ſo much Danger of being buried in this Ridge-form, as it is when plowed in by a ſin-

a ſingle Plough. Now when ſuch a Turnep-field is thus to be ſown in two-bout Stitches or Ridges, the laſt Broad-land Thoroughs muſt be firſt filled in, and the Ground plowed a-croſs the laſt Way it was plowed in before; and, where a full Crop of Turneps happens to be, there is no great Danger of having a good Crop of Wheat.

The Quantity of Wheat-ſeed that is to be ſown in this Month on each Acre.— The Wheat-ſeed, that is ſown in this Month, muſt be more than when it is ſown in *September* or *October*, becauſe, by being ſown ſo late, it will not gather, nor branch like that ſown ſooner, when a Peck leſs upon each Acre of Ground was ſufficient. Now, therefore, two Buſhels and a half, or ſomething more, ſhould be the Quantity ſown on an Acre.

Sowing Wheat-ſeed in this Month, after Turneps, *or on new* ſtocked up *Wood Ground.*— That Turnep-Ground, that you give but only one Plowing to for ſowing it with Wheat, be ſure to plow it as ſhallow as poſſible, that you do not *bury* (as we call it in *Hertfordſhire)* the Sheeps-dung, by too deep Plowing; if you do, you cannot expect a good full Crop of Wheat; and not only thus bury the Seed, but the ignorant Ploughman may likewiſe, if he plows his Ground too deep, turn up a raw Earth, that will ſtarve the Crop, inſtead of nouriſhing it, and thus deceive his Maſter, to his great Loſs. On this Account, it alſo ought to be carefully obſerved, in the plowing up any new ſtocked or broken up Wood Ground, or where Buſhes, or other Trumpery, that grew near Hedges, have been grubbed up, which we call *Hedge-brows*; I ſay, if a ſilly Ploughman, in ſome Sort of Earths, ſhould plow too deep, he may, perhaps, meet with a crude Clay, a poor Gravel, chalky or ſandy Bottom, that may prove ſo ſterile, as to yield a lean Crop of Corn at Harveſt. But in Caſe an unſkilful Ploughman ſhould be guilty of ſuch a Fault, and cauſe ſuch a Damage, the

ſame

ſame Ground may be plowed up again preſently after the Crop of Wheat is off, and either by one, or more Plowings, it may be prepared for ſowing it again with Wheat-ſeed, the ſame Seaſon; and then, if he manages right, and regularly plows up the Virgin better Earth, that he laſt Time plowed in too deep to do good to the Wheat-crop, the Farmer, very probably, will ſtand a greater Chance for obtaining forty or fifty Buſhels of Wheat on one Acre, than he did before. In ſhort, let what I am here going to advance become a ſtanding Rule in plowing up ſuch Ground, *viz.* Plow no Ground into Broad-lands, beyond or deeper than its natural Goodneſs, for then the Crop will complain: Nor plow Stitches or Ridges too deep, for then they will not lie together ſo well as thoſe ſhallower plowed.

CHAP. III.

Of Plowing up Mole *or* Ant-Hills.

THE excellent Uſe and Benefit of the Ant-Hill *Plough.*— This Plough is made with Elm and Aſh, in the Shape of a Harrow-ſlide; its two Sides are made of Elm, about five Inches ſquare, and in Length three Feet ſix Inches each Side, and the Breadth or Width, between Side and Side, is of the ſame Dimenſion; to which are fixed two wooden Handles, of five Feet ſix Inches in Length, the Whole being faſtened together by four upright wooden Standard Pieces, of a Foot each in Length, that ſupport two croſs Bars at Top. In this Plough there is a long iron Cutting-knife, very well ſteeled, faſtened at Bottom croſs the Plough, three Inches wide, of a circular Make, with a little Point ſticking out in the Middle, ſomewhat like a Cheeſe-Knife:

Knife: All which is to be drawn by a Row of ſingle Horſes; the Chains or Traces of the hindmoſt or Phill-Horſe are put on an iron Hook, drove into each End of the Side-pieces, and done ſo compact and ſtrong, that it will cut through any Mole or Ant-Hill, that is not too broad for the Knife or Cutting-iron, as few or none are; and is of ſuch extraordinary Service, that it will cut off many Banks or Hills in one Day, and more than twenty Men can do with Hand-tools. Now, therefore, you, who own or rent Land peſtered with theſe Mole or Ant-Hills, may, if you are wiſe enough to be your own Friends, get your Ground clear of them, at a ſmall Expence and Trouble, even for a Trifle Charge, in Compariſon of the Loſs they every Year cauſe; nay, I believe I may affirm it for Truth, you will be great Gainers by it, for the Earth that ſuch Hills will produce, if they ſtand thick, will pay, for Aught I know, more than twenty Times the Money you lay out in thus clearing your Land of theſe Excreſcencies, if it is mixed with Lime and Dung, and ſo made a valuable Compoſt, for dreſſing either plowed or meadow Ground, for four or five Years together, which ſuch a Compoſt will not fail to do; and longer, if the Notion of the *Middleſex* Hay-Farmers is true, who inſiſt on it for an experienced Truth, that if Lime, Pond, or Highway Sullidge and Dung are mixed together, and lie till it be rotted, and turned twice or thrice, it will (if laid thick enough on) dreſs their Meadow Ground for ſeven Years, before ſuch an Aſſiſtance is worn out. But this is only one Way of diſpoſing of the Ant-Hill Earth. Others, as ſoon as they can, after being cut up, lay the Turf and Mould of them in ſeveral Heaps, and burn them to Aſhes, which they ſtrew about the Graſs-ground for improving it. But, let a Perſon make Uſe of the Hills in any Manner, they ought to be cut up, and the Place

ſowed

ſowed with one Sort of Graſs-ſeed or other, that the Herbage may be preſently recovered, and the Owner receive nothing but Gain by this ſuperlative Piece of good Huſbandry, as the prudent Gentleman has undertaken to do, to whom I wrote the Copy of the following Letter.

SIR,

AS I profeſs myſelf an Author, that has for ſeveral Years wrote on Huſbandry, my Duty obliges me to take all Opportunities to endeavour making good my Pretenſions, which are to introduce the readieſt and cheapeſt Way of managing Farming Affairs; a notable Branch of which may be performed by the valuable Mole or Ant-Hill Plough. Now ſome of theſe have been made weaker or ſtronger, as the Bulk and cloſe Situation of the Banks require: On this Account, I have been ſo fortunate to meet with one ready made to my Hand, that was beſpoke by Mr. ——, the Lord *We—n*'s Park-Keeper, of a great Strength, both of Wood and Iron, ſo that I found it unneceſſary to put you to the Charge of the *extra* Plough I mentioned to you; for all the Parts of this Banking-plough are ſo ſtrongly fixed, that you need not doubt its cutting through any Banks; and which your Ploughman may do, by heaving up, or lowering the two wooden Handles of this Plough, for then the long broad Cutting-knife will cut deeper or ſhallower. But the Truth of this Sort of Culture, is to cut all ſmooth and even with the common Surface; and, that it may effectually do ſo, the Knife is extraordinary well ſteeled; and when it grows blunt by much Wear, it muſt be taken out of its Frame (for it is made for this Purpoſe) and ground; then you may proceed again, without fearing it will be too ſoon worn out, for ſuch a Plough is capable of plowing or cutting up Thouſands of Acres of theſe Excreſcencies,

ſcencies. The Seed, I mentioned to you for ſowing on the Places where the Banks ſtood, I could not get, for, after riding ſeveral Miles, I was anſwered, All was ſold. Pleaſe, therefore, to take common Hay-ſeed, and ſow inſtead thereof, which will not, indeed, come up ſo ſoon as this Sort, nor bring up an intire Crop like this; becauſe, in the former, there are Mixtures of ſeveral Sorts, whereas this is all clean, and laſts for ever, with good Huſbandry. I delivered the Plough at *Market-ſtreet*, to Mr. *Benjamin Carter*, on *Monday* the 18*th* of *April*, and charge you for it, the very ſame Price that Mr. *L—t* was to pay for it, as follows:

A Bill for a Banking-Plough, *delivered to Mr.* Carter, *by Order of Mr.* ——.

1743.	*l.*	*s.*	*d.*
For the Wheeler's and Smith's Work for the Banking-plough	1	6	3½
For Carriage of the Plough five Miles to *Market-ſtreet*	0	3	0
For Mr. *Ellis*'s Trouble in riding ſeveral Miles after Seed, buying the Plough, and accompanying it to *Market-ſtreet*	1	1	0
Total	2	10	3½

Thus, Sir, I have ſent you the Account of Charges, preſuming you will not allow me leſs than a Guinea for my Time and Trouble, for I had the very ſame Sum for the laſt Plough. And as to the thirteen Shillings you left with me as Earneſt, I have paid it in Part of what is due to the Wheeler and Smith, as Mr. *Carter* ſaw me do at his Houſe; ſo that there remains now due, in all, only One Pound, Seventeen Shillings, and Three-pence Half-penny, which, if you will pleaſe to order the Pay-

ment of to me and the Tradeſmen, I ſhall be very much obliged to you; and, if any Thing occurs, wherein I can be any Ways ſerviceable to you, you may freely command,

SIR,

Your moſt obedient humble Servant,

W. ELLIS.

P. S. Sir, this excellent Plough will cut up more Banks in one Day, than twenty Men can do with Hand-tools; and, if you burn the Banks or Hills, it ought to be done with all Expedition, leſt the Ants, or Piſmires, infect the Parts where they are carried to: But for a more copious Account of this Matter, ſee my *Modern Huſbandman* for the Month of *February*, and which I am at this Time writing for the Preſs.

A further Account of the Uſe of the Banking-plough.— Before this Plough was invented, Gentlemen and Farmers made Uſe of the thin Iron-plated Shovel, which, by the Help of a Man's Foot, would cut the Turf of a Mole-bank or Ant-hill, in four or more Parts, which it threw back, to give Room for cutting out the Core of the Hill; then the Flaps of Turf were turned down again, ſo that no Graſs, or very little, was loſt, by this Method; but then the Piſmires would breed the very next Seaſon, and ſo on, till they raiſed another Bank or Hill in the ſame Place; and, for the Core of Earth thus taken out, they would directly throw or ſpread it about the Meadow, and thereby give the Ants an Opportunity to enter other Places, and propagate their Species; which was a chargeable, tedious, and wrong Way of clearing Graſs-ground of theſe Hills, for, by the Cover of the Flaps of Turf, the

the Piſmires were protected againſt killing Froſts, the Beaks of Birds, and other Vermin; whereas, by cutting up the Banks ſmooth and even with the Surface, the Froſts can enter, and the Birds come at to devour many of theſe pernicious Inſects, whoſe Piſs and Dung are of ſuch a corroding poiſonous Nature, that it burns up the Graſs about that Part of the Hill, that lies moſt expoſed to the Sun, ſo that the Owner loſes a conſiderable Deal of his Graſs, when ſome are ſo ſilly as to believe they get the more by having theſe Hills ſtand in their Feeding Grounds: But this is not all the Miſtake ſuch Graziers are under, for there is another they are likewiſe under, on Account of the Nature of Ant-hill Graſs, which is certainly an unwholſome Sort, made ſo, as I ſaid, by the Piſs and Dung of the Ants; and, for a Proof of what I here aſſert, let but any Perſon open one or more of theſe Banks, and they may eaſily ſmell the great Stink that proceeds from ſuch a Place of Taint, which may occaſion, for Aught I know, Diſtempers in thoſe Beaſts that feed on them; but there is a further Inconveniency attending Grounds run over with theſe Ant or Mole-hills, and that is what I am to write.

How a Gentleman's Feeding-Ground was damaged by Mole *or* Ant-hills, *and how cured.*— A Gentleman, Owner of a large incloſed Feeding-graſs Ground, had an infinite Number of ſuch Banks ſtanding in the ſame, that were ſo big and cloſely ſituated, that his fattening Oxen were obliged to make Roads to paſs and repaſs to their Feeding between the Ant-hills, inſomuch that, in a very wet Seaſon, they would ſtick up to their Knees in ſome Parts of this flat Ground, to the great Damage of their Owner; for by ſuch wet, dirty Travelling, in a Place where Cattle ſhould walk dry, and lie clean at their Eaſe, their Appetites were leſſened,

and their Thriving very much prevented; and ſo the Owner went on for many Years, till, at laſt, his Eyes became opened, and he got this Plough, which ſoon cleared his Ground of theſe deſtructive Graſs-Wens, and which, to make the beſt Uſe of, he had Men to follow the Plough with Forks, to gather up the Turf-part, and lay it in Heaps to rot; and when it was ſufficiently rotted, the Owner had it ſpread over the whole Meadow, and it fertiliſed it to a very great Degree for many Years, beſides thickening the Surface, and thereby cauſing the Ground to lie drier than it did before, which was moſt certainly a wiſer Choice, than conſuming the Turf by burning it to Aſhes; but, if a Perſon will burn ſuch Turf to Aſhes, it is eaſily done, by putting a few Sticks, Chips, or other Fuel, under a Heap of it, and when lighted, the Turf and Mould will preſently burn ſo free, that unleſs lined, or increaſed by laying more Turf or Mould on the Outſide, the Fire will quickly make its Way through the Heap; and therefore it ſhould be kept in as much as poſſible, till the Fire reduces the Turf and Mould to Aſhes. Which ſhews the good Conduct of the Gentleman I wrote the Copy of the beforementioned Letter to, who told me he has three hundred Acres of ſuch Ant-hill Ground in ſuch a Condition as this was, before it was cured by this cheap ſerviceable Plough, whereby the large Park, theſe Ant-hills now ſtand in, will become a pure even Graſs-ground, that will return the Owner far better Crops, both in Quantity, in Conveniency for the Cattle's Walking eaſily to and fro, and for their Feeding on a fine healthful Graſs, to their great Improvement, and his Profit. Hence, then, I would obſerve, how wrong thoſe Gentlemen and Tenants are, who ſuffer Abundance of theſe Ant-hills to ſtand in their Meadow Grounds Year after Year, till ſome get ſo big, as to become near a Cart-Load, when taken

taken up, to the Loſs of near half their Graſs in ſome hot dry Seaſons, as may appear by the bald whitiſh-coloured Tops of ſuch Ant-hills. This, therefore, is to give Notice, that I furniſh this excellent ſtrong Banking-plough, to any Perſon, at the Price before-mentioned, which ſhould be got Time enough in Readineſs, to begin cutting up Banks in *February*, *March*, *April*, or *May*, or, indeed, at any Time of the Year, rather than ſuffer their Damage any longer: For all Graſs-ground, that is thus peſtered with theſe Ant-hills, affords not only leſs Graſs by Abundance, than a clear, ſmooth Surface; but ſuch Graſs is both unhealthful and unpleaſant to the Cattle that are forced to feed on it. Who then would have ſuch unprofitable Ground become a delicate Grazing one, and fit for either Feeding or Mowing, muſt be their own Enemies, if they refuſe a Cure for it, by this famous cheap Banking-plough.

CHAP. IV.

Of Plowing and Sowing Horſe-Beans.

Plowing and Sowing Horſe-beans *in the Vale of* Ayleſbury.— About St. *Paul*'s Day, the Twenty-fifth of this Month, is the ſet Time for their Beginning to ſow Horſe-beans in the Vale of *Ayleſbury*, and other ſuch low Places, if the Weather favours their Purpoſe, and hold the ſame Work all *February*. Now there are ſeveral Ways of Sowing, Setting, and Drilling of Horſe-bean-ſeed, which, in this and next Month, I intend to be very particular in giving Accounts of. But as *February* is the Month or Seaſon, wherein the greateſt Part of this Work is done, I ſhall refer my chiefeſt Enlargements

largements on the ſame till then, and only here take Notice of the *Ayleſbury*-Vale Management. In this fertile Vale, where their Ground lies always in one Poſture of Ridge and Thorough, they never can plow a-croſs, but ſupply that by Ridging up and Caſting down their heavy Earth at different Times, as the Caſe requires. When they are to ſow it with Horſe-beans, it is done after a Wheat or Barley-crop, and then, as I ſaid, they begin, about St. *Paul*'s Day, to ſow their Bean-ſeed in two Forms or Methods. One is in the Broad-caſt Way, and is performed by the Seed-man's Sowing the Seed by his Hand Broad-caſt, out of the Seed-cot he carries about with him; and this he does in a double Manner, or what we call *Sowing twice in a Place*, thus: He begins Sowing, within a Yard, or little more Diſtance from the Ridge of the Half-acre Land, and walks, or rather ſteps along, for his Feet are ſomewhat a Guide to his Hand in the Throw: When he is come to the End of the Land, he returns, ſtepping within a Yard, or little more, of the Outſide of the ſame Part of the Half-acre Land, ſowing another Croſs-caſt over the laſt Caſt, whereby Half of the Half-acre Land is compleatly ſown with Bean-ſeed; and then the Sower proceeds to furniſh the other Half-part of the Half-acre Land in the ſame Manner he did the laſt, till all the Ridge-land is finiſhed, by ſowing over it about two Buſhels of Bean-ſeed; which being done, he begins to plow the Horſe-beans in with his Foot-plough, that is drawn by a ſingle Row of Horſes, either by Ridging up the Earth, or Caſting it down; but the latter Way is moſtly followed. And when this Work is attended with what the Vale-men call a *right Seaſon*, which is, when their black Earth works very clung and heavy, they ſeldom fail of having great Crops. And, indeed, this is the beſt Way of all others, as being the cheapeſt, and

ſooneſt

ſooneſt done, to obtain a full Crop of Horſe-beans, was it not for their two arch Enemies, the Hale or Hell-weed, and the Dolphin Black-bug or Fly, which ſometimes ruin their Crops of Horſe-beans, notwithſtanding all the Art and Labour they can uſe. For which Reaſon, the late Invention came up of ſowing Horſe-beans by a Drill Inſtrument, made ſomewhat like a Wheel-barrow, which follows the Plough, and drops the Seed at regular Diſtances, which are covered by the Turn of the next Thorough or Furrow the Plough throws on them. Thus, by Sowing one Thorough, and miſſing the Breadth of another, the Sheep have Room to paſs and repaſs, to eat up the growing Weeds, to break the thready deſtructive Hale-weed, and for giving the Sun more Room, and the Air a freer Paſſage between the Rows, for cauſing the better Kerning of the Bloſſoms, and diſcouraging the Breed of Inſects. And where a Farmer thinks fit to hough his Beans, he may, as they do in ſome Parts of *Middleſex*, uſe a ſuitable Horſe-break, as I ſhall in next Month give a particular Account of; and alſo, at a proper Time, ſhew how a Crop of Horſe-beans may be ſaved from the venomous deſtructive Breeding and Feeding of the black Dolphin-bug or Fly, even after they have ſeized and ſettled on the whole Crop; which will conſequently be of vaſt Service to the Vale Country in general, when they prove by this, they are delivered from this Field-peſtilent Inſect, at a moſt cheap Rate, even for the Expence of one Man's Day's Work, who is thereby capable of curing an intire Acre of Beans in one Day; and ſure the Charge of one Shilling, or eighteen Pence, cannot be well grudged for ſo great and ſo good a Service, when an Acre of Horſe-beans, if they are a full Crop, ſometimes pays almoſt, if not quite as much, as an Acre of Wheat. Thus, if a Crop of Horſe-beans can be

delivered

delivered from the Hale or Hell-weed, and theſe poiſonous Inſects, there is little Danger of a full Crop, if the Ground is in tolerable Heart, and ſufficient Quantities of Rain fall in the enſuing Summer to further their Growth. I have only to add here, that, by this good Huſbandry of keeping the Bean-land clear of the Thiſtle, Curlock, and other Weeds, the Benefit does not end here; for then the Ground may be eaſily preſerved and kept clean againſt the next Wheat or Barley Seaſon, and ſo prevent the exceſſive Charge and Damage that many Vale-Farmers ſuſtain by the Multiplicity of Weeds, and their Seeds growing among thoſe two white Crop-Grains.

CHAP. V.

Of Sowing Hog-peaſe.

O*F Sowing* Hog-peaſe *in chalky and other dry Soils in this Month.*— In this Chapter, I ſhall ſhew the Skill of ſome Farmers, as it relates to their Sowing of Hog-peaſe in this Month; which, to do, I am to obſerve, that the Peaſe, ſowed in this Month, ſhould be the moſt hardy Sort of all others, and the Soil a very dry one, becauſe the ſevere Froſts, that generally happen now and hereafter, would kill a tender Pea ſowed in wettiſh or cold Earth. But when the hardy Horn-grey Hog-pea is ſown in a chalky Soil in *January*, notwithſtanding the cold and wet Weather that may follow, and cauſe their Heads to look reddiſh and pine, yet this good Property attends them in ſuch a Earth, that they will recover again as ſoon as the Weather becomes calmer and warmer. Therefore, in ſuch a chalky Soil, whether the preceding Crop

Crop was Wheat, or Barley, it matters not; the Farmer here ſows his Peaſe either Broad-caſt, to the Quantity of three or four Buſhels on an Acre, and plows them in, with the Foot or Wheel-plough, which Way ſaves the Charge of a Sower: Or elſe a Man ſprains the Peaſe in, out of his Hand, in a Thorough or Furrow made by the Plough, and then the Plough turns the next Thorough or Furrow of Earth upon them, and ſo on, throughout the Field.

How a Farmer ſowed his Hog-peaſe *ſeveral Ways, in chalky Ground.*— In this Tenant's Farm, he had chalky and loamy Earths, that lay in different Situations, which obliged him to ſow his Peaſe accordingly: *Firſt*, in his chalky Soil, that lay neither too deep nor too ſhallow, he took this Method in Plowing and Sowing it: He firſt ſowed Half his Horn-grey Hog-peaſe, all over the Ground Broad-caſt, and when he had ſo done, and plowed them in, he ſowed the other Half of the Seed all over the Ground in the rough Condition the Plough left it, and harrowed all in, and ſo it was finiſhed: *Secondly*, As this Farmer (as he told me) was walking from his Home through a chalky Field, to *Wendover* in *Buckinghamſhire*, he ſaw one Half of it ſown with Peaſe in the Broad-land Way, and the other Half of the Field in Two-bout Lands or Ridges; and what was here moſt remarkable, the Ridge-peaſe were a better Crop than the Broad-land Peaſe, which made him endeavour to account to himſelf for the Difference: And that was thus, *viz.* As the whole chalky Field had but a ſhallow Surface, or Staple of chalky Earth, it was the Opinion of this Farmer, that, as the Ground was gathered up by the Plough in the Form of a Ridge, the Hog-peaſe, ſowed therein, had a Fund of looſe Earth, ſufficient to ſtrike their Roots deep enough into it, and draw therefrom ſo free Nouriſhment, as in-

creaſed their Growth, beyond thoſe Peaſe ſown in Broad-lands. Now, as the Bottom or Foundation of this Field is a whitiſh, hurlucky, ſtony Earth, or very hard Chalk, it reſiſts the thready capillary Roots of the Peaſe from ſtriking or entering into it, when they are ſown in the Broad-land Faſhion, for, in this Poſture, the Surface or Staple lies in the ſhalloweſt Manner poſſible; and undoubtedly this was the Reaſon, why thoſe Hog-peaſe did not proſper ſo well that were ſown in Broad-lands, as thoſe did that were ſown in Ridges. And therefore, this Farmer took the Hint from this firſt Sight, as he walked through the Field, and accordingly ſowed his chalky Field with Hog-peaſe in Ridges, in Imitation of the other, to his great Profit; and he ſays, he is reſolved to follow this Way of ſowing his Peaſe in this Month in Ridges of two Bouts, where the Chalk lies very ſhallow.

How the ſame Farmer ſowed his Hog-peaſe, *a new Way, to great Profit, in his loamy Land.*— As the chalky Ground is one of the ſhorteſt Sorts, a loamy Earth is ſtiffer, yet not ſo ſtiff as Clays, and therefore requires a Management adequate to its Nature; which this Farmer thought to be ſo, when, at ſoon as he had done ſowing his Wheat-crop in *October*, he directly plowed up his Wheat, and laſt Barley-ſtubbles, and laid the Earth all in Broad-lands, to remain in this Poſture all the Winter, to ſweeten and ſhorten it againſt the Time he was to ſow it with Peaſe, which was in this Month, and then he begun thus: Firſt, he harrowed all the Land even, and then directly, with the narrow Two-wheel Wheat-ſeed Plough, he made very ſmall low Bouts, which left a Thorough or Drill on each Side every little Bout; and, as he made a Bout, a Seed's-man followed the Plough, and ſtrained or ſprained the Hog-horn Grey-peaſe out of his Hand; and, when all the Field was finiſhed, he drew his

his Harrows long-ways throughout the Field, and thereby covered the Seed from Beaſts and Fowls; and, when the Peaſe were got high enough, he had them houghed long ways between their Rows; and, when they were about a Foot high, he had them *moulded up*, as we call it, which is Drawing the Earth with a Hough upon the Pea-roots, and by this Means he gets vaſt Crops of Hog-peaſe.

How another Farmer ſowed his Hog-peaſe, *a new Way, in a dry loamy Soil.*— This Farmer differed very little in his ſowing of Peaſe in a loamy Soil from the laſt, for this, like him, plowed his Land in very ſmall, low, narrow Bouts, but did not ſow his Peaſe the ſame Way; for, as the other had a Seed's-man to ſprain his Peaſe in every Thorough or Furrow, this made Shift without an extraordinary Seed's-man; for, after all the Field was plowed with a very narrow Plough into ſuch Bouts, the Plough-man ſowed the Seed-peaſe Broad-caſt all over the Field, in Order for their Falling and Lodging only in the Thoroughs or Drills. But this Way is not ſo clean a one as the laſt, where the Seed-peaſe are ſown by ſpraining; becauſe ſome of the Seed is apt to lie on the Ridges, and then the Conſequence is, that the Peaſe will, by the Harrows, be pulled into the Drills or Thoroughs in an irregular Manner, which leads me to take Notice here, of the beſt Way of all others to ſow Peaſe of any Sort, and that is by the Drill-plough.

How Hog-peaſe *may be ſown to the Truth and greateſt Advantage, by the Three-wheel and Pulley-drill Ploughs.*— Notwithſtanding what I before wrote of the different Ways of ſowing Hog-peaſe, none of them can be ſaid to be ſo good and regularly ſowed, as when they are ſowed out of the Hopper of the Three Wheel Drill-plough, becauſe the two broad Boards of this Plough, the three Wheels, and the

Skill of the Plough-man to guide them, keeps the Share from going deeper than the Plough-man would have it. And, at the ſame Time, the Breadth of the Drill is ſo adjuſted by the Width of the two broad Boards and Share, that the Depth and Breadth of it are, as it were, confined to almoſt exact Dimenſions. Likewiſe the Seed-peaſe, by the regular Turn of the third Wheel, are kept running out of the Hopper in a moſt exact Manner; ſo that, by the Mathematical Make of this profitable plain Machine, the whole Frame of it, and its Work, are ſo ingeniouſly contrived, that one Part anſwers to another, in the eaſieſt, cheapeſt, and compleateſt Order of all other Drill-ploughs I ever met with. And what is further very remarkable, in the Make of this ſerviceable Inſtrument, is, that it deſerves to be called a *Make-haſte Plough*; for, as it is drawn on Wheels in a fine Tilth Earth, it diſpatches a great Deal of Work in a little Time, which thus intitles it to be eſteemed by the Farmer as his Jewel-plough; and the more, for the ſeveral Sorts of Work it may be employed in, as in the Sowing of Wheat, Barley, Oats, Beans, Peaſe, Thetches, Tills, St. *Foyne*-Seed, Clover, Trey-foil, Turnep Seed, Cole-Seed, Canary-Seed, Woad and Wold-Seed, and many others, too tedious to mention here, chiefly by Help of three or four different ſized little Shifting Wood-boxes, of about three Inches Diameter each, that coſt a meer Trifle of Charge; which raiſes a Reſentment in me, againſt my Brother Farmers, for ſlighting and even ridiculing new Inventions, that do not correſponed with their ſordid Humours, and thus make it a moſt difficult Work for an Author, to give ſuch a Deſcription of any new, though ever ſo ſerviceable an Inſtrument, as to introduce it into Uſe with common Farmers, in any reaſonable Time. On which very Account it is, that ſeveral new, cheap, and profitable

profitable Implements, and Secrets in Huſbandry, can hardly make their Way into Home practice, till Foreigners have firſt embraced their beneficial Uſe, and then the great public Succeſs of them have, at laſt, convinced ſome of our more rational *Engliſh*, of their infinite Value; and which will certainly be the Caſe of the *Britiſh* Farmers, if they are not more expeditious for the Time to come in making Trials of this, and other Ploughs, Horſe-breaks, and Tools of Huſbandry, which I have, and can, introduce more, in ſo plain a Manner, that a mean Capacity may have a ready and eaſy Conception of their great Service, by their public Cuts and Deſcriptions in my Books, as they are in Practice with ſome few of the more knowing Part of Mankind, who endeavour to promote their own and their Nation's Intereſt. To which, I muſt add, that it does not a little ſurprize me, to find that the more learned and richer Sort of Men, I mean, the Landlords of Farms, are not more ready to bring the Three-wheel Drill, or Pulley-plough, into their Tenants Practice, for the Sake of their own Intereſt; for it is certain, that one, or both of theſe Pay-rent Ploughs, will enable the Farmer to pay his Rent, when another ſhall break, who never uſed it. A rare Example of this I hinted in my former Works, when I mentioned the Generoſity of Mr. *Clements*'s Landlord, who was ſo zealous for his own and Tenant's Good, that he not only made a Preſent (as I was told) of this compleat Three-wheel Drill-plough, but ſent it him by near a hundred Miles Carriage, which is the Diſtance from the Place of the Plough's Make to the Farm. And what is alſo very commodious in the Invention of theſe two Sorts of Ploughs, they are commodiouſly fitted for different Soils. The Wheel Drill-plough is proper for dry Loams, Gravels, Sands, and Chalks: The Pulley-plough, that imitates the Foot-

Foot-plough, is ſo light a one, that a Man may eaſily carry it a conſiderable Way on his Shoulder, and is a pretty Plough for working in low, moiſter Earths, and Vale ſtiffer Loams, than the Wheel Drill-plough can, and is here very ſerviceable to ſow Wheat, Barley, Oats, or any other Sort of large Corn, or Graſs-ſeeds, *&c.* out of, as the Wheel-plough does, by ſhifting its little Boxes accordingly: It will alſo perform in looſe Sands, and Chalks, and Loams, to great Profit, but is not made to penetrate any gravelly, hard Earth, ſo clever as the Three-wheel Drill-plough can. The Inventor of this Pulley-plough, Counſellor *King*, got a vaſt Crop of Oats, laſt Year, 1742, by Sowing the Seed out of the Hopper of this Pulley-plough (notwithſtanding it was a very dry Summer) in Drills that it made ſo cloſe together, that the Wheat, or Barley, or Oats, or other cloſe-ſown Grain, ſeems almoſt to grow in the Broad-land Faſhion, for there is no Houghing can be well performed between the Drills of ſuch cloſe-lying Corn, but only where Peaſe, or Beans, *&c.* are ſown in ſuch diſtant Drills, that this Pulley, or Wheel Drill-plough, may afterwards be made to ſerve, inſtead of a Horſe-break, to looſen the interval Earth, and prepare it for moulding up the Roots by Hand-houghs, which makes both theſe Drill-ploughs of double Service to their Owners. I very lately ſent one of theſe Pulley Drill-ploughs to a Gentleman in *Scotland*, who was wiſer than Thouſands of our *Engliſh*, in conſidering his own Intereſt, by improving his Land with this famous Machine, that, as I ſaid, not only ſerves to plow and ſow, but harrows, or gathers the Earth up on the Drill at the ſame Time, by two fixed little Irons at the Arſe of the Plough; and, as I before obſerved, ſerves likewiſe for a Horſe-break afterwards—— Which Plough I furniſh at a reaſonable Price to any Perſon.—

ſon.—— There are other Ways of managing Peacrops; but of this, more in next Month, when other Sorts of Peaſe may be ſown different, in their Natures, from the Horn, or *Windſor*-greys, which are deemed the two hardieſt Sorts, that are ſown in Fields.

CHAP. VI.

Of Thetches, *or* Vetches, *or* Tares.

THetches, *to have early.*— In *Hertfordſhire* we call them *Thetches*, that may be ſown for an early Crop about *Michaelmas*, and then they are called *Winter-Thetches*, becauſe of their early Sowing, and Feeding Sheep and Horſes in the Spring-time, for which Uſe, they are exceeding profitable, as coming at a Seaſon, when all other green Meat is very ſcarce: But the Thetches ſown at that Time of Year are a hazardous Undertaking, for I knew one of our top Farmers ſow them about *Michaelmas*, and he ſucceeded to his Wiſh, by having a very early Crop of them. But, on a ſecond Attempt, the following Year, at the like Time of Sowing them, he loſt the whole Crop by it; for, though they made a fine Appearance all the next Winter, which was a mild one, yet, at *Candlemas*, they were killed by the Violence of froſty Weather, ſo that he was diſcouraged from ever Sowing them afterwards at that Time of Year, and betook himſelf to a later and ſafer Way, which was, to ſow them in this Month.

How Thetches *may be ſown to great Advantage, on ſeveral Accounts.*— Firſt, if you ſow Thetches in *October*, *November*, *December*, or ſafer, in this Month, in a *Chilturn* Country, ſow three Buſhels on

on an Acre; for, when Thetches are ſown in any of theſe Winter Months, they ſhould not be ſown in leſs Quantity, and then they will be but equal to two Buſhels and a Half, ſown in *March* or *April*: For, in theſe two Spring Months, the Thetch is, in a Manner, out of the Power of violent Froſts; and the more, as it is, in its own Nature, a hardy, hot Vegetable; yet not ſo hardy, as to be Froſt-proof, when it is a very ſevere and long one, which ſeldom happens at that Time of Year. Now there is a Winter large Thetch, and a ſmall *Lenten* Thetch. The firſt Sort are ſold in common at *High-Wickham* Market, in *Bucks*, and at other Places. The laſt are much ſown about *Warminſter*, in *Wilts*, where they call them *Lenten Thetches*, being a ſmall, round Sort, ſown in *March* or *April*, and therefore called by that Name, and generally return a very great Crop. If any Perſon have a Mind to ſow the large Winter Thetch, they ſhould do it in a Gravel, Sand, Chalk, or other dry, warm Soil, and where ſuch Land is ſcreened from the Fury of North and Eaſt Winds, by a low Situation, or by tall, thick Hedges, or Wood; for, if a Farmer ſhould be ſo indiſcreet to ſow the Winter Thetch in a Clay, or other wet, cold Soil; or, in a Gravel, Chalk, or Sand, that lies full bleak, and expoſed to the Power of a North, or Eaſt Wind, he has Reaſon to fear the ill Conſequence of loſing his Crop of Thetches by it. *Secondly*, Thetches may be ſown in divers Manners and Forms. In Vale, clayey, or wettiſh Grounds, they may be ſown, and then plowed in, as they do their Wheat-ſeed, on their Ridge, Rood, Half-acre, or Acre-lands: Or all the Thetch-ſeed may be harrowed in on the rough Ground, as ſoon as the Plough leaves it. And here the Thetches, ſown in this Month, will be of the greateſt Service for Staking the Cart and Plough-Horſes, in *April* or *May*, in common Fields, as is very

very uſually done by ſome of the conſiderate Huſbandmen, who can foreſee the Want of this delicate Horſe-food, before they feel it. And though they feed on the green Thetch in ſuch an open Field, where Wheat, Barley, or other Grain grows juſt by them, yet, by their being thus confined to the Length of their Tether, or Baſs-rope, they may ſafely truſt them abroad in the Night, as well as the Day: Or, where a Perſon can conveniently ſtay longer for Feeding his Horſes with them out of the Rack in a Stable, they may be mown daily for this Purpoſe, and ſo on, till they be in Kid or Pod, and thus cauſe a great Deal of good Dung to be made moſt Part of the Summer, and yet daily work the Cattle by ſuch Food, with little or no Corn-meat beſides. In our *Chilturn* Country of *Hertfordſhire*, we ſow the Thetch at ſeveral Times, in order to enjoy its green Food at different Seaſons; and, therefore, ſow ſome in this Month, ſome in next, and ſome in *March*; for, as our Country is for the moſt Part incloſed, we enjoy that Privilege which the Vale Open-field Farmer cannot; for here we can feed our Horſes, our Cows, and our Sheep, with green Thetches, in the incloſed Field, at their Liberty, or mow them, and bring them Home for Feeding the Horſe and Cow under Cover. And, for theſe Purpoſes, we ſow Thetches in ſeveral Forms, as the Soil is more or leſs dry: If it is a gravelly Loam, chalky Loam, ſandy Loam, or an intire dry Loam, we generally harrow the Seed in; if wettiſh, we ſow the Thetch-ſeed in Two-bout Lands, the Firſt for Mowing or Feeding, the Laſt for only Feeding in the Field; and thus we make Uſe of the green Thetch, till it begins to kid. In ſome Parts of *Middleſex*, where it is not properly a *Chilturn* nor Vale Country, but of a middle Nature between them both, they ſow them in three, or four, or ſix, or eight Bout-lands, as

their Ground lies wetter, or drier, and enjoy the Thetch in different Manners, as their Conveniency will let them; or where the Land is free of large Stones, and lies commodious for the Uſe of either of the Drill-ploughs, Thetches may be ſown out of either of their Hoppers to great Profit; and, indeed, is the beſt Way of all others; becauſe, by ſowing Thetch-Seed in Drills made as cloſe as poſſible to one another, the Mould and Earth, falling on the Seed in a moſt looſe Manner, will eaſily let out the tender Head of the Thetch, and nouriſh it to a great Degree, by the Waſh of Rains, and afterwards very much ſecure their Roots from the too fierce Heat of the drying Sun Beans: But, for further Illuſtrating the great Value of the Thetch, take the following Account of it.

How a Farmer, by the Inclemency of the Weather, had but a poor Crop of St. Foyne *and Clover Hay, and how he ſupplied their Loſs by Thetches.*— This Farmer I know very well, for he rents a Farm of a hundred Pounds a Year, but about a Mile diſtant from *Gaddeſden*, where, having miſſed Mowing a full Crop of St. *Foyne* Hay and Clover, he was neceſſitated to have Recourſe to the Sowing of Thetches, for herein lay his laſt Hopes of ſupplying the Loſs of his two Artificial Graſſes, and therefore uſed his beſt Endeavours to obtain a full Crop of them: Accordingly he plowed up an Oat-ſtubble very early, and, having lain ſome Time, he harrowed it, dunged it all over, and plowed it in; then on the rough Ground, as the Plough left it, he ſowed the Field (which was three Acres) with Thetches, at the Rate of two Buſhels on each Acre, for they were the ſmalleſt Sort of all, which the Farmer harrowed in; and, though an extraordinary dry Summer ſucceeded, yet he had a vaſt Crop off them. Now, two Acres of the three he mowed green,

green, and gave them to his Horſes in the Stable from Time to Time, which ſupported them very well under their Plowing; but the third Acre he let remain growing, till the Thetches were between green and ripe, and then cut and made Hay of them, by only turning the Swarths three or four Times without putting them in Graſs-cocks, or Heaps. And, on the tenth Day of *March*, 1742, the Horſes were eating this very Thetch-Hay out of a Rack in the Stable as a dainty Food; for the ſmall Corn, that was among the Straw or Hay of the Thetches, did him a ſignal Service in ſupplying both common, natural Hay, and Oats, or Beans. But there is a further Advantage accruing to a Farmer by the Growth of Thetches.

How a full Crop of Thetches *adds to the Strength or Heart of the Ground.*— The laſt mentioned Crop of Thetches, even in the dry Summer of 1742, was ſo large that, if they had not been mown green, it was thought by good Judges, they would have rotted upon the Ground, before they could have been mown for Corn. Now this furious Growth of the Thetches happened on ſeveral Accounts: *Firſt*, he gave his Oat-ſtubble two ſeveral Plowings, which brought the Earth into a fine, looſe, porous Condition. Next, he dunged the Field well, which ſtill added to thoſe maſterly Qualities of fining, looſening, and fertiliſing the Earth, and giving the infant Thetch an eaſy and free Paſſage for its Head into the Air; and then, by the Help of Rains and Dews, the Thetches ſoon cover their Roots, and the whole Ground, which keeps it moiſt and hollow, kills moſt Sorts of Weeds, and greatly enriches it, by preventing thoſe Exhalations from the Sun, which very much tend to the Impoveriſhing of the Earth; and thus the Field, while it was producing a large Crop of Thetches, was getting daily more and more into Heart, by the great Cover they brought on the

Ground, and thereby fitted and prepared it for a Turnep or Wheat-crop to ſucceed this Thetch-Crop; for a full Crop of Thetches is eſteemed to be as good as a middling Dreſſing to the Land.

The Nature and Uſe of Thetches.— The green Thetch, mown and given to Horſes in Racks, is an excellent Soiling for them, will fat them very expeditiouſly, and is one of the wholeſomeſt of Vegetables to this ſerviceable Beaſt. A Mare fed on them, a few Days, will be ready to take Horſe. A Cow fed on them, in Field or Houſe, will give Abundance of Milk, and fatten at the ſame Time. Nothing exceeds the Feed of the green Thetch for ſudden Fattening of Sheep, making Ewes fatten Lambs a great Pace, and if Store-ſheep are fed on this green Thetch, it will cauſe them to dung and ſtale very much in the Fold, to the great Improvement of the Land; on which Account, either Fat or Store-ſheep may be kept in the Thetch-field, even till it is in Bloſſom, and a little Time afterwards; in ſhort, I feed my Plough-Horſes with theſe green Thetches or Vetches, and find they work under their Feed with Pleaſure; but, after the firſt Mowing or Cutting of them, they do not *rally*, as we call it, *i. e.* they do not grow again to much Profit. There are ſeveral other beneficial Uſes that Thetches may be put to; but I ſhall refer the Writing on them to another Opportunity, and only add here, that when Thetches grow into a thick Crop, they require good Weather to dry them in; therefore, thoſe who ſow Thetch-ſeed late, are in the wrong of it; for I have known ſuch forced to mow them for a Corn-crop in *September* and *October*, before they could venture to cut them down for the Rain, and then they proved good for little; for a Crop of thick-grown Thetches is very hard to get dry, after being thoroughly wetted. But I cannot finiſh my Account of Thetches here, becauſe it is neceſſary I ſhould fur-

further write on the Thetch, for its great Service, not only for feeding Cattle, but for preparing Land to be ſown with Turneps, Cole-ſeed, or Wheat, and therefore ſhall proceed as follows.

How a Farmer ſowed Thetches *with the double Plough.*— This was done by the famous Mr. *Gleniſter*, who firſt brought the Uſe of the excellent double Plough into *Hertfordſhire*, about the Year 1730; and it was on the twenty-fourth Day of *January*, that I ſaw him hold this Plough, by plowing in Thetches, on Wheat-ſtubble Stitches, after a Man, who went before it, ſowing the Seed; which this Plough excellently well performed, by plowing the Seed at one Bout in a Two-bout Ridge-land, that covers all from the Beaks of Fowls, and the Severity of Froſts; and here the Seed lies in ſuch a Poſition, that the Rains may waſh down the top Earth on the Roots to fertiliſe their Growth with the greater Expedition. Now, when Thetch-Seed is ſown in this Poſture, the Ridges are commonly harrowed afterwards, twice in a Place long-ways, to fine the top Earth and give the Thetch the freer and eaſier Room to come out; and, if they are ſown thick enough, they will kill Weeds, mellow the Ground, and become a good Preparation for Sowing the ſame with Turnep, Cole, or Wheat-ſeed, after the Thetches are eaten off; for here the Thetches cannot be well mown, becauſe the Earth lies in an uneven Form; and, therefore, Thetches, when ſown in Stitches or Ridges, are commonly ſown for Horſes, Cows, or Sheep, to eat them green, at their full Liberty, in an incloſed Field: But whether Thetches are ſown in any Form, or for to mow or feed, it concerns the Farmer's Intereſt to ſow the biggeſt Sort of Thetch-ſeed he can get at this Time of Year, for ſuch will come up ſooner, and grow faſter, than a ſmall Thetch; and this good Property attends the Sowing

ing of Thetches in this Month, that they have a far better Chance of receiving the great Benefit of Water-food, than thoſe Thetches that are ſown later; and therefore they are in the leſs Danger of being *buried* (as we call it) or being ſo incloſed in dry Earth, as to be hindered coming forth in due Time. But, for further Diſcovering the great Value of the lighter made Wheel double Plough, and Sowing Thetches by it, take the following Account.

How a Farmer plowed up an old St. Foyne *Lay; with the double Plough, and ſowed the ſame Ground directly with* Thetches, *to a great Advantage.*— The before mentioned Mr. *Gleniſter* is my particular Acquaintance, and a Farmer who lives at this Time, 1743, in *Hertfordſhire*; and the Perſon I am going to write of is another, who lives in the *Chilturn* Part of *Buckinghamſhire*; both celebrated Artiſts in Huſbandry, who occupy large Farms, and make Uſe of two Sorts of double Ploughs; a very ſtrong, heavy one, and a more light ſlighter-made one, as the Work is they are employed in: Beſides which, each of theſe Farmers keep and uſe three or four other Sorts of ſingle Ploughs, that they may be compleatly furniſhed with the moſt neceſſary Implements, of all others. Now the laſt mentioned Perſon is one who is Owner of chalky, gravelly, and clayey loamy Soils, that lie in high and low Situations, in ſeveral incloſed Fields, and therefore is obliged to plow with a different Plough that will beſt anſwer to the Earth, and Corn ſown therein; and, having had a chalky, loamy Field lie under St. *Foyne* Graſs, ſome Years, till the Graſs was in a Manner worn out, he took this Courſe, to make the beſt of his Ground, *viz.* In this Month, he plowed up his St. *Foyne*, chalky, loamy Field with the ſtrong Double-ſhare Plough, by ſix Horſes, that went three double, by which he plowed up very narrow Thoroughs, or Furrows, in this ſhort, ſoftiſh, chalky Soil, that proved a great

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Advantage to the Sowing of the ſame with Corn; for, as we ſay, the more Thoroughs, or Furrows, the more Corn; and this double Plough makes more Thoroughs in a Field, than any of the ſingle Ploughs can, and lays them much evener, and better, for the Reception of the Seed, and Nouriſhing it afterwards; and when all the Field was thus plowed into Broad-lands, he harrowed three Buſhels of Thetches on each Acre, and they throve ſo faſt, by the Freſhneſs of the new broken up Graſs-lay, that he began to mow the green Thetch-Crop in *April*, for feeding his Plough and Waggon-Horſes with it, out of a Rack in the Stable, and ſo continued Mowing, and Feeding, the Thetches, till ſome Time in *May*; when they were thus all mown off, he plowed the ſame Ground firſt into Broad-lands, with the Two wheel ſingle fallow Plough, and when the Land had lain in this Poſture a little Time, he harrowed it all thoroughly fine, and then directly hacked it acroſs the laſt Way of Plowing, ſhattered the Earth, and reduced it into a powdered, porous Condition, fit for ſowing it with any ſuitable Grain: And when the Field was thus got ready, he went to *Watford* Market, and bought a Parcel of the white *Eſſex* Roading-Peaſe, at five Shillings a Buſhel, which being a ſmall Sort, a few of them went a great Way, in Sowing this Field; and the further, for ſowing them in Drills at three Feet and a half Diſtance; and at the ſame Time he ſowed Turnep-ſeed in the Interſpaces between the Drills of Peaſe, which furniſhed the whole Ground with Seed, and then made one Harrowing once in a Place ſerve both. Afterwards, when the Turneps and Peaſe were got big enough to hough, he made one Trouble ſerve for all, and houghed both Peaſe and Turneps before he left off. But this great Improvement of thus ſowing this St. *Foyne* Field with Thetches, and Peaſe, did not end here; for after he had drawn theſe forward ſown Turneps,

and

and had them ſold about the Country the Beginning of *Auguſt* to Farmers, and others, for their culinary Uſes, to a conſiderable Profit, and had cut up and inned his Pea-crop; he plowed the ſame Ground directly, and, about *Michaelmas* following, ſowed it with Wheat; that, likewiſe, paid him to his Satisfaction, by the large Quantity of Wheat he reaped off it.

Remarks on the great Advantages that accrued to this Farmer, by ſowing his St. Foyne *Ground with* Thetches, *for a firſt Crop.*— The Peculiarity of this Farmer's Management, I think, deſerves ſome Animadverſion upon it, in Order the better to induce others to imitate the ſame good Huſbandry. *Firſt*, then, I am to remark, that this Farmer, by Plowing up his St. *Foyne* Field, and Sowing it with Thetches Peaſe, Turneps, and Wheat, deſtroyed the pernicious ſmall red Worms; at leaſt, he ſo wounded ſome, killed others, and diſcouraged the reſt from aſcending and lying near the Surface of the Earth, by often plowing, harrowing, and houghing, that his Crops of Peaſe and Wheat grew in Safety from the uſual Rapine of theſe Reptiles; which formerly had done ſuch Damage to a Crop of Wheat ſown on a Graſs-lay by this very Farmer, that he took Warning this Time by his own Fault to prevent another, for he loſt, as it was ſuppoſed, by the Worm's gnawing the Roots and Blades of his Wheat, twenty Pounds in one Year; and which, very probably, would have been his Caſe again this Time, if he had not altered his Meaſures; on which Account, he was certainly very right in Sowing his firſt Crop with Thetches; becauſe they are naturally bitter Vegetables, and ſo diſagreeable to the Worm, that it is ſuppoſed it would hardly make a ſecond Bite. But, beſides the Worm, I have ſhewn, in my former Works, the Danger, on another Account, of ſowing Wheat as a firſt Crop on ſuch a Graſs-lay of

of St. *Foyne*, becauſe this artificial Graſs is commonly ſuffered to lie longer down than any other; and therefore ſuch a Lay not only becomes a Receptacle or Neſt to breed and harbour Worms ſecurely in, but it cauſes this chalky hollow Earth to lie ſo looſe on a firſt Plowing, that the Roots of the Wheat cannot ſtand faſt in it; from whence proceeds the Breed of Smut, or the Crop's being ſtruck by Mill-dews, or blighted in a dry Summer. And, if a wet one happens, then in Courſe the Wheat-crop falls down, by the great Strength of the freſh Earth, which would bring on ſuch a luxuriant Growth, as to induce the Misfortune: So that the Farmer was very right in his Contrivance of ſowing Thetches, Turneps, Peaſe, and Wheat, which was getting four Crops off the ſame Ground, in about a Year and a Half. Yet I cannot ſay that he carried on his Improvements ſo far as he might have done, for it was poſſible, nay very feaſible, to have gained a fifth Crop in that Time, by plowing up the Ground immediately after his forward Turneps and Peaſe had been got off, and then harrowing in Turnep-ſeed directly on the ſame, which might have become a very gainful Winter-crop for feeding Sheep or Cows with, and then in this Month have ſet on a Wheat-crop to a great Advantage; becauſe the Feeding of Sheep on the Turneps would have dreſſed the Ground, and brought it into ſuch Heart, as to cauſe the Wheat to run up a-pace into a great Crop; or, inſtead of a Wheat-Crop, a Barley-crop might have ſucceeded, and perhaps been altogether as, or more, profitable.

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CHAP. VII.

Of Plowing for Oats.

WHY January *is the beſt Month for Plowing* Chilturn *Ground for Sowing it with* Oats.— This is the capital Month in the whole Year for Plowing all that *Chilturn* Ground into Broad-lands, that you deſign to ſow with Oats, and which, as a Preparation towards it, you opened the Broad-land Thoroughs, to lie and ſweeten in *November* laſt. The Benefit then of thus plowing Ground in this Month, to ſow it with Oats in next Month, or in *March*, is, that the Froſts will ſhatter the Surface of it, and thereby hollow and ſweeten it ſo, that there will be a much greater Crop, than if it was neglected, and only plowed but once juſt before Sowing. The Snow alſo and the Nitre of the Air contribute very much towards this Improvement. You, therefore, that will give your *Chilturn* Land, that is a Wheat or Barley Stubble, but one Plowing for Sowing it with Oats, ought, at furtheſt, to plow it up in this Month, and let it lie till the latter End of *February*, or Beginning of *March*, before you ſow it.

Why ſome Chilturn *Farmers think it the beſt Way to give their Land two Plowings, for Sowing it with* Oats.— Others plow their Ground for this Purpoſe in this Month, in Order to plow it up again in next Month or *March*, and then ſow it immediately after with Oats, as accounting it better Huſbandry, than to ſow Oats on only one Plowing in all, for that the Earth, by ſuch two Plowings, not only becomes finer and ſweeter, but many of the Weeds are either killed, or very much checked in their after Growth. A Matter of great Importance, that ought to be ſtrictly regarded by all ſuch Farmers, whoſe Fields have the wild Honey-ſuckle, wild Oats, Cat's-

Cats-tail, Poppy, Horſe-gould, Gould, Camock, and other Weeds growing in them, ſome, or all of which, are ſo pernicious to ſome of our old *Hertfordſhire* Farmers that, unleſs they give their Oat-ground two Plowings, they cannot get a good Crop of Oats; becauſe, with only one Plowing, the Weeds would grow ſo rampant, as to cripple and keep under the Growth of the Oats; but ſuch double Plowing is not here meant ſo to affect a ſandy, or looſe chalky, or a raſhy gravelly Ground as that a Farmer is neceſſitated to plow ſuch a Soil twice; no, that perhaps would do more Harm than Good. It is the ſtiffer Sorts of Loams, and clayey Grounds, that moſtly deſerve ſuch a double Operation.

How neceſſary it is to plow Ground twice, where Clover is to be ſown among Oats.— About *Chaffon*, a Pariſh that lies in the *Chilturn* Part of *Buckinghamſhire*, where ſeveral of their Farmers ſuckle their Houſe-lambs for a *London* Market, they give their Wheat, or Barley-ſtubbles, always two Plowings for Oats, when they deſign to ſow Clover among them, which is what is very commonly done here; and, when the Oat-crop is got off, they let the Clover-crop remain but one Year; and, when they practiſe this good Huſbandry, of making a fine Tilth of their Land, by theſe two Plowings, they ſeldom ſow more than ſix, or eight Pounds Weight of Clover-ſeed on one whole Acre.

How two Farmers ſowed Oats *in this Month, and had great Crops.*— This is a very unuſual Thing, but theſe two Farmers would boldly venture to ſow their Ground in this Month with Oats, in Order to have their Crops off very early; accordingly, they ſowed their gravelly clayey Grounds with black Oats, and had a great Return at Harveſt, for, as it luckily happened for them, the dry Summer of 1741 ſucceeded ſo well in their Favour, that they had ſeven Quarters on an Acre of black Oats: However, at

beſt, they run a Riſque of loſing their Seed, and Crop, for, if a hard froſty Time had ſoon followed this Sowing, and met the young Blades of the Oats, it would have been a Wonder, if it had not killed them.

How another Farmer prepared a wettiſh Loam, for Sowing it with Oats *in* February.— The Field contained a wettiſh loamy Land, that lay in Wheat-ſtitches, or little Ridges, compoſed of two Bouts, which is a common Poſture for Ground to lie in, either ſowed with Corn, or when it is under a Preparation for being ſown with Corn; particularly in the Counties of *Hertford*, *Eſſex*, and ſome Parts of *Suffolk*, &c. where the Earth is wettiſh, becauſe, in this Shape, it lies in a moſt dry Order. Now, a Farmer intending to ſow theſe Wheat-ridges with Oats, in this Month he plowed five of theſe Ridges into one Broad-land with the Two-wheel fallow Plough, and, by the Plough-man's Art, plowed them all down, by making ſeventeen Thoroughs or Furrows, to one Broad-land, and ſo on, till all the Field was thrown into Broad-lands, of nine Steps broad each Land, and thus it lay till *February*, when the Farmer harrowed in Oats, without plowing the Ground any more.

Plowing for Oats *in* Ayleſbury *Vale*, Middleſex, *and in ſandy Lands*.— In the Vale, ridge, ſtiff, blackiſh Loams, or rather clayey Loams of Vales, they ſeldom ſow any other Grain than Wheat, Beans, Barley, or Thetches; and therefore are at no Trouble in this Month for preparing Ground to be ſown with Oats in *February*. If they do ſow any, it is only on one Plowing. The Caſe is much the ſame as to the Size-lands of *Middleſex*: And, if any ſow Oats in ſandy Lands, they give the Ground only one Plowing, and, at the ſame Time, ſow and harrow in Oats.

Threſhing out Oats.— Do not keep Oats too long in the Barn, unthraſhed, for Mice and Rats eat

eat theſe firſt, becauſe they love theſe and Wheat beyond all others, Barley being rather too hard a Grain for their Bite, and Beans, and Peaſe, and Thetches, not agreeable to their Palates. I know a great Farmer ſo obſerving on this Account, that he thraſhes out his Oats betimes for Sale, and, in their Stead, has his Beans, or Peaſe, dried and ſplit, if they are not dry enough before; then, with theſe, he buys Bran and mixes his Beans or Peaſe with it, for his Horſes Food.

Oats *cut into Chaff for Feeding Horſes.*— A great Farmer in our Parts, whoſe large Farm conſiſted moſtly of Plowed-ground, ſeldom had Hay enough to feed his Horſes, Cows, and Sheep, which Defect to ſupply, he made Uſe of Oats to cut into Chaff, thus:— The Chaff-cutter's Way was, to take a large Handful of Oats in their Straw, and put them upon ſome Cavings of Wheat, Barley, Oats, or Peaſe, that he firſt placed at the Bottom of the long Cutting-box, which being pulled altogether forward to the Knife, by the forked Inſtrument, as the Cutter wanted them, he made an excellent Chaff of the Mixture, that in a great Meaſure ſupplied the Place of Hay.— Others take Wheat-ſtraw, and lay on the Bottom of the Box; next, they put a Layer of Cavings on that, and then another Layer of Wheat-ſtraw over both, which, being pulled forward as they are wanted, are cut altogether into good Chaff. Thus either of theſe Compoſitions will afford a Farmer ſuch a Manger Subſiſtence, as will prove a hearty Feed, eſpecially for his Plough and Cart-horſes; and is what every Year comes under my own Practice, notwithſtanding I am Maſter of ſome fine Up-land Meadow-Ground, as moſt is in *England*; but, by Means of my thus Cutting Chaff for my Cattle, I am enabled to ſell the greater Quantity of Hay for Feeding Deer with, as I

every

every Year do. But more hereafter of Chaff-cutting.

The Benefit of Plowing up Graſs-lays, or Wood-ground, for Sowing the ſame with Oats *in next Month.*— When there is Occaſion for Plowing up a natural Graſs-lay, a St. *Foyne* Graſs-lay, or new broken up Wood-ground: Or when we take up Earth from under Hedges, to mix with Lime and Dung, or Chalk, or Aſhes, for making a rich Compoſt, to dreſs and improve Arable or Graſs-ground with the ſame, it is beſt done in this Month; becauſe ſuch Graſs-lays, or Wood-ground, are generally ſo ſtored with fertile Salts, that they would be too rich to venture ſowing Wheat on them, as I have before obſerved. It is therefore reckoned a Piece of good Huſbandry with us, in this Month, to plow ſuch Ground up, that the Turf or Surface, that was, may have the longer Time to rot, againſt Oats are harrowed in upon the ſame in next Month, for Corn will not grow faſt, till the Turf is rotting, and, by this Means, the new turned-up Mould will have an Interval of Time to get ſweet and mellow, for the better Reception of the Oats, which is the propereſt Seed, of all others, to ſow ſuch Ground with; becauſe theſe have a ſtrong, tall Straw and Ear, that will employ a great deal of the Vertue of the Earth in nouriſhing them, if the Oats are ſown thick; and if they are blighted, or hurt by falling down, or receive Damage any other Way, the Loſs here will not be of that Conſequence, as the Loſs of a Wheat or Barley-crop would.

How a Farmer ſowed his white Ground with Oats *in this Month.*— This Man began ſowing Oats in his chalky Ground in the *Chriſtmas* Holidays, and plowed them in, ſaying, He would not be catched again by a dry Summer, as he was laſt Year, when he ſowed them later in 1740, and had a moſt poor Crop; for, tho' he rents a Farm of ſixty Pounds a Year,

Year, the great Froſt, and dry Summer, killed ſo much of his Wheat, in his chalky and gravelly Soils, that he ſold but forty Buſhels in one Year, and yet kept three Hundred Sheep for Folding.

CHAP. VIII.

Of Preparing Ground in this Month, to ſow Barley on it in February *or* March.

TO prepare Land in the Chilturn *Country, for Sowing it with* Barley *in* February *or* March. — Moſt of our *Chilturn* Farms are called *Turnep-Farms*, of late, by ſome, by Reaſon our incloſed Fields and Soils are, for the greateſt Part of them, proper for this Purpoſe, and becauſe of our Farmers cloſe Application to improve their Land by this famous Root; which it does in one of the beſt Manners of all others, when a Barley-crop ſucceeds a Turnep-crop, that was well houghed, and the Earth is of a dry Sort, clear of Weeds, and a full Crop of Turneps was fed off the ſame: Such Land, I ſay, is beſt ſown with Barley, on only one Plowing; but, where the Ground is clung, ſour, and weedy, then two Plowings are beſt, provided this Work is done in fair, dry Weather; becauſe Plowings, performed in ſuch a Seaſon, beſt ſweeten the Ground, ſhatter it ſmall, make it light, and kill Twitch or Couch-graſs, and other Weeds. Some, therefore, will plow their Land for the firſt Time in this Month, if the Weather is fine, as ſoon as the Turneps are eaten off, and plow it again croſs the laſt Way in *February* or *March*; the firſt Time very ſhallow, and the next Time deeper, by which Means the Sheeps-dung will be turned up at this ſecond Plowing near the Surface.

How

How a Farmer tried a new Experiment, by ſowing Barley *at ſeveral Times in one Field, in* January, February, *and* March.— I knew a Perſon plow up one Part of his Turnep-field, as ſoon as the Turneps were eaten off, and ſow the ſame on one Plowing with Barley in this Month. And in *February* he did the ſame by another Part of the ſame Field, as ſoon as the Turneps were eaten off; and in *March* the like by a third and laſt Part of the ſame Field. Now this he did to try a Practice, different from any in the Country; and although the Soil of the Field was a wettiſh Loam, he had the beſt Crop of the three, from that Seed ſown in this Month; and that, ſown in *February*, was the next beſt; and that ſown in *March*, the worſt: And all this happened by Means of a very dry Summer that followed; by which, the two laſt Sowings of Barley were deprived of that Moiſture, neceſſary for the Production of a full Crop of this Grain. But this was owing to the Accidents of Weather; for, in ſome Years, the late Sowing of Barley proves as much for the better, as ſuch early Sowing did this Year. I have known a raſhy, ſharp Gravel, ſown with Barley, after Turneps, in *April*, and yet the Owner had an extraordinary great Crop, by the Help of the following favourable wet Weather. From whence, I obſerve, that, ſince there is ſuch a Riſque of loſing great Part of a Crop of Barley by dry Weather, it highly concerns every Farmer throughout the Nation to have Recourſe to the Uſe of my Steeping Receipt, which infallibly increaſes a Crop of Barley in the drieſt Seaſon, and then he is not under a Neceſſity of Sowing his Barley-ſeed, either in *January*, or *February*, to prevent the Effects of a dry Summer, and thus perhaps be liable to loſe half his Crop; for, if Barley is ſown ſo early, and froſty, or extreme wet Weather happens, it will turn reddiſh, and much of it

die;

die; wherefore, it is a ſtanding Rule with the *Ayleſbury* Vale-men, not to begin ſowing Barley till the twelfth of *March*. But, in the *Chilturn* Country, we are not ſo preciſe in our ſowing of Barley; for, as we commonly ſow Barley after our Turneps are eaten off, it is ſometimes the Beginning of *May*, before we ſow it, and then do not much doubt of Succeſs, if our Land is fine, and in good Heart, and the Barley-ſeed ſteeped and limed, as I have formerly ſhewn, for, in the *Chilturn* Country, the Farmers ſeldom, or never, make a Tilth for Barley on Purpoſe. But the Vale-men, who ſow no Turneps, always do: Except the *Chilturn* Farmer ſows Barley on a Wheat-ſtubble; then they give it ſeveral Plowings to bring the Earth into a fine Tilth for ſowing it with Barley-ſeed in *March*, or *April*, as by the following Inſtance I ſhall ſhew.

How a Chilturn *Farmer prepared a Wheat-ſtubble, for ſowing it with* Barley.— This is a Practice more of late in Uſe, than ever, in Order to obtain a Crop of Barley, for the Sake of its being of greater Worth, than a Crop of Beans, Peaſe, Oats, or Thetches; for as the *Chilturn* Country, for the greateſt Part, is an incloſed Country, they are willing to make the moſt of their Land; accordingly, they account this to be one Way of doing it; tho' the Farmer ſometimes catches a Tartar by it, when he does not dreſs ſuch a Wheat-ſtubble Ground extreme well; for, if he neglects this, the Barley (which is a Grain that draws a great Deal of Vertue from the Earth) will complain, be a poor Crop, and leave the Earth, in a lean Condition; becauſe here two Sorts of Crops follow each other, which are both reckoned great Peelers of the Ground, and therefore it muſt be ſupported accordingly. Now, to prepare a Wheat-ſtubble for ſowing it with Barley, there are ſeveral Ways of doing it with the Plough, too tedious to mention here; but,

as the following is a very particular one, I ſhall here give an Account of it, *viz.*— When a late Harveſt happens, we are ſometimes deprived of an Opportunity to plow up Stubbles for ſowing them with Turneps, and then many are tempted to prepare ſuch Stubbles for ſowing them with Barley. Thus, a *Chilturn* Farmer, preſently after Harveſt, with his Two-wheel Fallow-plough, plowed up a Wheat-ſtubble, that before lay in Broad-lands, into Broad-lands again: Then, about the Beginning of this Month, he bouted it up with the ſame Plough; that is, he laid up the Earth in Single-bouts, and, at *Candlemas*, bouted the Land again, in Single-bouts, off the laſt Bouts. In *March*, he back-bouted the Single-bout down, then harrowed all plain, dunged the Field all over, and ſowed and harrowed in his Barley-ſeed; which is certainly the quickeſt and beſt Way, that ever was invented, for bringing *Chilturn* Ground into a fine Tilth.

Plowing Vale Ground for preparing it to ſow Barley *in* March.— There are two Ways that Vale-men, in ſome Parts, get Crops of Barley on their Ridge-lands. One is, by making a regular Tilth, which they begin to do in *April* or *May*, and, by ſeveral after Plowings, get their Ground fine, againſt ſowing it with Barley in *March* or *April* following. The other Way is done by Way of a Hitch-crop, and then they plow up the Wheat-ſtubble immediately after Harveſt, and, by one, or more Plowings, they get their Ground in a Tilth for Barley; but as they perform no Plowing in this Month, for either of the Ways of Sowing Barley, I make no Mention how it is done.

Preparing Ground in Middleſex *for ſowing* Barley.— Here, when they have a Mind to ſow Barley (which is ſeldom done) they fallow their Three and Four-bout Lands, and plow twice, at leaſt, in this Form; afterwards they plow two, three, or four

four of theſe Size-lands into one Broad-land, and harrow in Barley; but, as none of theſe Operations are performed in this Month, I have no more to write here on this Subject.

CHAP. IX.

Of Preparing Ground for Turneps.

TO prepare Chilturn *Clays, or ſtiff Loams, with the double Plough, for ſowing* Turneps *in* June. — There are ſeveral Ways to prepare Ground to be ſown with Turneps. In *Hertfordſhire*, we commonly prepare our Fallow-land for this Purpoſe; for then we reckon we do not loſe a Seaſon, becauſe we get a Crop of Turneps, and a Crop of Barley, in one Year, inſtead of a Crop of Wheat; and therefore, if you did not give your Land a Winter-plowing for this Purpoſe, in *November*, or *December*, do it at furtheſt in this Month, for the firſt Time, in order to make your firſt Stirree in *April*, or *May*, for the ſame Intention. An Oat, a Pea, or a Bean-ſtubble, are the Sorts we commonly convert to this Uſe; and, for ſo doing, we plow the Land, with a Plough, and in ſuch a Form, as beſt agrees with its Nature. In this Month the double Plough comes in very ſerviceable, in ſeveral Reſpects; one whereof is, that, about the Middle of *January*, it will fit your ſtiff Land for Turneps by plowing the Broad-land Pea, Bean, or Oat-ſtubble into four Thorough-ſtitches, or Two-bout Lands, with half the Trouble the ſingle Plough does; and it is much the beſt Way to lay all ſtiff Clays and *Chilturn* ſtiff Loams up in theſe narrow Ridges, eſpecially where a thin Surface of Mould lies on a

red, or other Clay, as many Fields do; for, by this Means, the Clay, in ſome Meaſure, will turn to Mould. But when ſuch a Earth is plowed, and laid in Broad-lands, the red Clay (which is of a voracious, ruſty, iron Nature) will feed on the Mould, and convert it, in ſome Degree, to a Clay; which is a Matter of ſuch Importance, that many of the knowing Farmers ſtrictly obſerve, as often as they conveniently can, to plow ſuch Ground in the higheſt Poſture poſſible, for lying dry, and expoſed to the Power of Froſts, that will ſhatter and ſweeten it in the moſt exalted Manner, againſt Turnep-ſeaſon. It was therefore, in this Month, that a Farmer living near me plowed, with the double Plough, an Oat-ſtubble up into theſe ſmall Ridges, with four Horſes in a loamy Soil; and, as ſoon as this Field was done, he plowed up another incloſed Field, of the ſame Nature of Earth, that was a Pea-ſtubble, for the ſame Purpoſe, both croſs the laſt Way of Plowing, by Reaſon, had he plowed the Ground the ſame Way it laſt lay in, the old Henting-thoroughs, or Water-thoroughs, would have been apt to block up, and put the Plough by its Work, *&c.*

Plowing up Chilturn *Grounds with the ſingle Plough.* — Of which there are many Sorts. In *Hertfordſhire*, for this Purpoſe, we uſe the Two-wheel Single Fallow-Plough. In the dry Part of *Buckinghamſhire*, the Two-wheel Wood-chip Plough. In *Surry*, the One-wheel over or under Cheek-plough. In *Kent*, the Two-wheel Turn-wriſt Plough, and, in *Suffolk* and *Norfolk*, the Two-wheel Jockey-plough, *&c. &c.* all for Plowing up Ground, in order to get it into a fine Tilth and Sweetneſs, againſt *June* and *July*, for ſowing it with Turnep-ſeed.

Plowing and Dunging Stubbles, preparatory for ſowin them with Turneps.— If you have not done it laſt

laſt Month, lay your Dung on either Wheat, Pea, or Bean Two-bout Ridges, and, when it is well ſpread, bout it in, and you will find it a ſingular good Way; and, though it is practiſed but by very few as yet, it will, in Courſe, come into more Faſhion; becauſe, in this Poſture, the Dung lies, rots, and mellows in the Earth it is ſo mixed with in this high Situation, and thus prepares it in an exquiſite fine Manner, for ſowing Turnep-ſeed in the ſame in *May*, *June*, or *July*: Or, if your Ground lies in Broad-lands, plow your Dung in, in this Month, in Broad-lands, or Round-work, and it will anſwer, but not ſo well as in the Bout-poſture. This I recommend to the Practice of *Chilturn* Farmers, for in Vales, *&c.* this Operation of Plowing in Dung in two Bout-ridges cannot be performed. I alſo recommend the ſame Piece of good Huſbandry to be done in the *Middleſex* Three and Four-bout Size-lands, where they ſow Turneps to be drawn, for either Selling, or Feeding their Suckling Ewes for fattening their Houſe-lambs in this froſty Month.

CHAP. X.

Of Plowing in ſnowy and wet Weather.

THE great Damage incident to the Plowing of Ground in ſnowy Weather.— A Farmer was at Plow in a ſnowy Time, and, having a great Deal to do, would go on, and plowed in Snow as it fell. The Conſequence was, that, as he was then ſowing Peaſe, the *May*-weed came ſo thick up afterwards, that there was no Peaſe, only a Thetch appeared here and there, that happened to be ſown among the Field-peaſe: But this was the leſſer Damage, for the Ground was made ſo ſour, by plowing in the Snow, that it did not come to itſelf; that is, the Far-

Farmer did not get it into a fine ſweet Tilth again, till the ſeventh Year. Another Farmer would plow his Ground, while the Snow lay on it, and came off in the ſame Manner; for Snow, when mixed with the Earth, by the Plough, lies a conſiderable Time in it, before it is diſſolved, and in that Time it becomes a Sort of Cement, and ſerves to make the Ground cling together, and increaſe its ſour Quality, to the great Damage of ſucceeding Crops of Grain. Beſides which, in Caſe froſty and chilly wet Weather happens for ſome Time afterwards, the very next Crop of Peaſe, Oats, or Barley, will be certainly a very poor one; becauſe when the Roots are chilled and ſtarved by Cold, above and below, there remains little Hopes of Succeſs.

The ill Effects of Plowing up Ground in wet Weather.— Next to plowing Ground in a ſnowy Seaſon, doing the ſame in wet Weather, is likewiſe of pernicious Conſequence to the Farmer; for although it is not ſo bad altogether, as the former, yet, when a Journey at Plough is performed in a great Rain, it will prove bad enough to him, becauſe all Clays, ſtiff Loams, and Gravels will be ſo bound and cloſed, that, at the next Plowing, the Farmer may depend on finding his Ground pretty well furniſhed with Weeds, and plowed up in *Blocks*, as we call it, that is, ſo clotty, and rough, that it will be little or nothing the better for the firſt Plowing. I am Owner of an incloſed Field whoſe Soil is a gravelly Loam, that is ſo apt to run into a Conſiſtence, like the Batter of a Pan-cake, in Caſe a great Rain falls in the Time of Plowing it, or preſently after, that we are forced to take ſpecial Care to put off Plowing it, when there is Reaſon to ſuſpect a great Rain would attend the Operation: But, in looſe, ſhort, chalky Soils, there is not that Neceſſity for ſuch extraordinary Care, becauſe theſe do not ſuffer Damage like the others.

CHAP.

CHAP. XI.

Of the Uſe of Manures *and* Dungs, *for* January.

THE Benefit of dreſſing Wheat-crops, by ſpreading Dung *over them in this Month.*— Stable-Dung, before it has fermented and rotted, in ſome Sorts of Applications, rather deſtroys Vegetation, than promotes it; for if ſuch crude undigeſted Dung is plowed into the Ground, as it comes out of the Stable, juſt before Wheat, or other Grain, is ſown, the Heat, produced by its fermenting in the Earth, will be apt to burn up, or wither, in ſome Degree, the Roots of the Corn; but, if it does not do this, the Seeds of Weeds, that generally accompany ſuch unrotted Dung, will probably vegetate, and become Part of a weedy Crop, among clean ſown Wheat, or other Corn-ſeed: Therefore, if a Perſon is pretty ſure the Straw or Litter is clear of Weeds, and he is reſolved to apply ſuch new-made Stable-dung to the Nouriſhing of a Corn-crop, let it be done by ſpreading it over the Wheat or Rye in this Month, and then the Snow and Rains will in Courſe waſh down its Quinteſſence on the Corn-roots, defend them from the Power of Froſts and Chills of Wets, and, in hot, ſcorching Seaſons, prevent the ill Conſequences of the Corn-roots ſuffering by two great Droughts: To which, I add, that ſuch a moiſt Covering of Dung will add greatly to forward the Growth of the Corn in dry Weather, and thereby help to make it a bulky Crop, and alſo do the Ground a further Service, in preventing too great Exhalations from the Sun, that, in

in ſome ſcorching Summers, violently extract and draw out the Spirit of the Earth, to the Impoveriſhing it, in ſome Degree; a Matter of greater Conſequence than many think of, and, in my Opinion, deſerves a larger and better Diſcourſe, than I am capable of writing. In ſhort, as I ſaid before, the Inconveniency of laying ſuch long crude Dung, as a top Dreſſing, on Wheat or Rye, in this Month, is certainly not only attended with the Hazard of carrying the Seeds of Weeds to the Ground, that may be mixed in the Straw or Litter, but alſo, from thoſe that may paſs through the Body of the Horſes; for Oats, that ſome Horſes dung whole, as well as Barley, have been found to produce wild Oats, and ſo the Seeds of Weeds may poſſibly retain ſo much Vertue in them, as to grow again, after they are voided in ſuch Dung; which leads me to obſerve, that rotten Dung is beſt for this Purpoſe, and the more ſo, when, managed, as I do my own, in the following Manner.

The Author's Way of curing his Stable-dung, for making it fit to nouriſh Vegetables to the greateſt Advantage.—— I mention this once again, for endeavouring to perſuade my Readers to practiſe this advantageous Way of managing the Dung of their Stables; which, if they do, they will certainly find the good Effects of ſuch a valuable Piece of Huſbandry. It is my conſtant Practice, to ſave all my Stable-dung under Cover, and, for doing it with the greateſt Conveniency, I have it laid in a Place adjoining to the Stable. Now, to this Place, I oblige my Servant to carry all the Soap-ſuds made in the Houſe, from Time to Time, and throw it over my covered Dunghil, in ſuch a Manner, that all Parts of it may have a Share of the fertile Ingredients of Oil or Greaſe, and Pot-aſh, that make the Soap; and all the Urine, that is made in the Houſe, I likewiſe oblige my Servant to throw over

this

this Dunghil, or ſome Manure that I keep to dreſs my growing Corn with, in this or other Winter or Spring Months, and then ſuch Dung, or Manure, never fails of defending my Wheat or Rye from the furious Power of deſtructive Winds, that oftentimes blow in this Month, and from the violent Froſts, that commonly are the ſharpeſt in *January*, of the whole Year. In this Month, therefore, if it is froſty enough to bear the Cart on the Wheat or Rye, without damaging it, carry your ſhort, or other rotted Dung, on the green Corn, and ſpread it over all its top Part, as near as you can, for, the truer it is ſpread, the leſs will be uncovered.

Of dunging Turnep-ground, for preparing it to be ſown with Barley-ſeed.— In this Month, if the Turneps were eaten off the Ground by Sheep, and the Owner deſigns to ſow the ſame with Barley, he may now carry out his Stable or Yard-dung, and lay it all over the ſame, in order to plow it in, and then to let the ſame Land lie till *March*, when it is to be plowed a ſecond Time for Barley-ſeed, to be harrowed in; by this, the Dung will have Time to rot in, and mix with the Earth, and ſo incorporate, as to mellow the Land, and get it into good Heart againſt Barley-ſeaſon. This is alſo a good Way to improve thoſe Wheat-ſtubbles which the *Chilturn* Farmer deſigns to ſow with Barley, for, by ſo doing, the Haulm, or Wheat-ſtubble, plowed in with the Dung, will rot, and help to fine and hollow the Earth, for the better Reception and Growth of the Barley-ſeed; but this Improvement ſhould be performed with rotten, not long Dung, becauſe long Dung will be apt to drive up before the Plough at the laſt Plowing, and hinder the Harrows working as they ſhould do, unleſs it be a gravelly Soil, which will in that Time feed on, and ſhorten the long Dung to Admiration.

Dunging Meadow-ground.— It is alſo very profitable to dreſs Meadow-ground with rotten Dung alone, or Dung and Earth mixed together; or better, with an Incorporation of Dung, Earth, and Lime, or Chalk, for ſuch a Compoſt, if rightly prepared, and laid on thick enough in this or other Winter Months, will ſhew its Efficacy for ſeveral Years after.

Dreſſing Meadow-ground with Soot in this Month; its great Advantages made appear.— Now we that live in *Hertfordſhire*, at twenty or thirty Miles Diſtance from *London*, think it worth our While, in ſome Years, to buy *London* Coal-ſoot, even at one Shilling a Buſhel Charge, when at Home, to lay on our Meadow-ground; for, on this, the Soot will not be waſhed too deep into the Earth, as it ſometimes is, in looſe Plowed-land, but will help to preſerve the Graſs in a growing Condition, againſt Froſts and Chills, kill Worms, Grubs, Dars, and Slugs, or make them quit the upper Part of the Graſs-ground and ſo prevent their uſual Damage; will burn up and deſtroy Moſs, the common greateſt Enemy to Meadows; will bring on a ſpeedy Head of Graſs, and, if a wet, warm Seaſon follows it in due Time, there will be a vaſt Burthen of the beſt of Graſs. Nothing is known with us to come up to this Manure of Coal-ſoot, which as far exceeds Wood-ſoot, as a Shilling does Six-pence, and will nouriſh ſuch Graſs-ground ſo well for three Years together, that no other Aſſiſtance need to be given it in that Time. I write from Experience, as having tried the Force or Strength of moſt Sorts of Manures in Meadow-fields, and therefore recommend this, as the capital, efficacious, and moſt profitable of all other Manures. Twenty ſingle Buſhels, of this Soot, ſow one Acre, but twenty-five will do it better.

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Dreſſing Plowed-ground with Soot.— The ſame Quantity will do on Plowed-ground, ſowed over Wheat or Rye, in this Month, either on Broad-lands, or on Two-bout Ridges. But, I am of Opinion, it is better let alone, till the latter Part of next Month, for then you will be more ſecure againſt the Fall of deep Snows, which, in this Month, are very apt, by a ſudden Thaw, to waſh away the Soot too ſoon; for many Farmers have loſt the Benefit of Soot this Way, and by very great and long Rains that have fell preſently after the Soot has been ſown, and waſhed away its Goodneſs before it could regularly take the Ground, which it ſhould have ſome dry Days to do, to make it truly efficacious.

The Benefit of dreſſing Plowed and Graſs-ground with Wood-aſhes.— Theſe are a much ſofter and more ſpongy Sort than Coal-aſhes, have little Share of Sulphur, and more of the ſaline Part, which renders them leſs ſerviceable for fertiliſing the Ground than Coal-aſhes. And as I can buy theſe Wood-aſhes, about the Country, for three Half-pence a ſingle Buſhel, when I muſt give Four-pence a ſingle Buſhel for Coal-aſhes brought from *London*, I thought it good Huſbandry, to buy ſeveral Cart-loads of theſe Wood-aſhes laſt Year, and laid them under Cover, for my Servant's throwing the Piſs-pots over them every Morning, in order for preparing them to be ſowed over my green Wheat. Accordingly, in this Month of *January*, 1742, I had theſe Wood-aſhes ſown over ſeveral Acres of my Wheat, and they truly anſwered my Expectation, in protecting the Wheat againſt the deſtructive black Froſts, and cutting Winds; kept it under its right Verdure, and brought forward its Growth with Vigour, inſomuch that, I am of Opinion, it proved as ſerviceable to my Wheat as Soot did, that I ſowed over another Part of the ſame Grain. If then theſe Aſhes, by the Help of Urine (which ſtood

me in, as I ſaid, but three Half-pence a Buſhel) did my Corn as much Service as Coal-ſoot did of Ten-pence a Buſhel, I muſt certainly be a conſiderable Gainer, allowing, that one Buſhel of Soot went as far as four Buſhels of Wood-aſhes in covering the Ground. Theſe Wood-aſhes likewiſe, when they have imbibed a ſufficient Quantity of Urine, are of equal Service to Meadow-land, if they are ſown over it in this Month, to the Number of eighty ſingle Buſhels on each Acre, as being of great Value for burning away Moſs, killing, or driving away Worms, Slugs, Dars, and Grubs, from the Surface Part of the Earth, and preſerving the Graſs-roots againſt the Chills of Froſts and Wets, and bringing on an early Head and Crop, for Feeding or Mowing. Theſe will likewiſe become a Manure for three, four, or five Years.

The Benefit of dreſſing Plowed and Graſs-ground with Coal-aſhes.— Theſe excellent Aſhes are much uſed by Gentlemen and Farmers who live within thirty Miles of *London*. By Gentlemen chiefly, for improving their Meadow-ground: By the Farmer, for improving his Meadow-ground, his artificial Graſs, his Wheat and his Barley-crops, *&c.* *Firſt*, the Farmer, for his Meadow-land, thinks it a cheap Manure, to lay forty Buſhels of theſe Coal-aſhes on each Acre, for producing plentiful and early Crops of the beſt of Graſs, for three or four Years together. *Secondly*, The Farmer thinks it of the like Service, to lay the ſame Quantity of theſe Coal-aſhes on each Acre of his Clover, Ray-graſs, Trey-foil, Lucern, or St. *Foyne* in this Month, as the beſt Time of all others, and that in the Beginning of it, becauſe theſe Coal, like Peat-aſhes, are with Difficulty forced to part with their ſulphureous Quality, which is the Riches of them, and therefore require great and long Waſhings of Rain to make them part with it. On this Account, it is, that

theſe

theſe Aſhes become more and more in Uſe, eſpecially for thus ſowing them on Artificial Graſs, as being thought by many to be more profitable for this Purpoſe, than Soot, becauſe they are of Opinion, that as theſe Coal-aſhes coſt but Three-pence or Four-pence a Buſhel, and Soot ſometimes Ten-pence or a Shilling a Buſhel, and very much adulterated into the Bargain, they are of the greateſt Profit, for Artificial or Meadow-graſs. They are alſo much uſed in making a Compoſt of Dung, Mould, or Highway or Pond-mud, with Chalk or Lime, or Soap-aſhes, for Meadow-ground; and ſome ſow Coal-aſhes naked, as they come from *London*, on their growing Corn in this Month, to great Advantage, particularly when a wet Summer follows their Application.

The Bites of Chimney-ſweepers, as they relate to good and bad Soot.— Theſe moſt excellent Manures of Coal-ſoot, and Coal-aſhes, I have amply wrote of in my former Works, and therein diſcovered which are the right and wrong Sorts of them for preventing Gentlemen and Farmers giving away their Money for Rubbiſh; yet I think it abſolutely neceſſary, to further enlarge on theſe uſeful Subjects, for I aſſure them there are great Impoſitions attending the buying of Coal-aſhes, as well as Soot. I have only Room here to write on the laſt, and that is, to let them know, I have bought Soot out of a Chimney-ſweeper's Cellar, been there an Eye-witneſs of their filling their Buſhel, ſaw them load my Carriage with Sacks of it, and yet was deceived in my Expectation of the good Quality of the Soot; for, as I have been informed, ſome of the villainous Part of the Chimney-ſweepers have Holes made in the Floor, over their Cellar, by which they can, on a ſudden, order the Goodneſs of their Soot in what Degree they pleaſe. If the Chap is a Ready-money one, and takes off a good Quantity, is a ſharp Inſpector,

ſpector, and like to continue a Cuſtomer, then he ſhall have the better Sort; if otherwiſe, the worſer: And no Wonder if it is ſo; if it be true what ſome of the Chimney-ſweepers Boys or Apprentices affirm, that they muſt have no Victuals that Day, unleſs they bring Home ſuch a Quantity of Soot; which, to perform, they get up either light Street-dirt, or Smiths, or other Aſhes, or Cork-duſt, or Saw-duſt, to mix with ſome Soot to hitch out their *Quota*, and according to the Boys Excuſe, when they beg of People walking in the Streets (of which Number I have relieved ſeveral) it carries ſome Face of Truth in it. But, for a further Confirmation of what I here write, it was but in next Month, 1742, that my Man told me, one five Buſhel Sack of Soot, or ſomething like it, was as heavy again, as the ſame Quantity was in another Sack; which ſeems to decide the Matter at once, for undoubtedly the Weight of the heavy Sack was occaſioned by the great Quantity of Aſhes mixed with a leſſer Quantity of true Soot, which, if pure, is, in itſelf, a light Body. But ſome of theſe Sacks, the Man ſaid, he believed, were near as heavy as five Buſhels of Wheat.

How a Gentleman dreſſed his Meadow-ground with Soot.— It was on the ſecond Day of this Month, that a Gentleman had one hundred and ſixty Buſhels of Soot laid on his Meadow-ground, which killed the Moſs, and increaſed the Crop of Graſs for four Years after: But it has a little Fault belonging to it, and that is, the Soot is apt to imbitter the Hay that is made of it the following Summer; but is excellent for ſaving and bringing forward late ſown Wheat: And alſo, if Soot or Coal-aſhes are ſown over a ſecond Year's Crop of Clover in this Month, it may bring on a full Bite in *April*, and cauſe you to ſtand a Chance of having double the Quantity of Graſs, than you would otherwiſe have, if

if you did not ſow any of this, or other Manure, or Dung; and therefore is of great Value for bringing on an early Cover, or Head of Graſs, that may prevent the Sun's burning up the tender Blades and Roots of it.

Sowing Lime over Wheat.— Some ſow ſlaked Lime over their green Wheat in this Month, which will do great Service, not only to fertiliſe the Wheat-crop, but it will kill, or drive down the Worm from its Roots. But this Manure, as hot as it is, does moſt Good on dry Land, becauſe wet Ground diſſolves and drowns it too ſoon. Some alſo ſow Lime-aſhes over their Meadow-ground, and, if they are laid to the Quantity of forty or fifty Buſhels on an Acre, will do great Service.

How a Gentleman durged his Clover-lay in this Month.—At the Beginning of this Month, a Gentleman plowed in his Dung into a Field that had been under a Clover-lay, two Years before; he gave it the firſt Plowing at *Michaelmas*, and the ſecond he performed now in ſingle Bouts croſs the laſt Broad-land Plowing, in order to prepare the Ground for Barley.

CHAP. XI.

Of the Management of Sheep *in this Month.*

THE good and bad Properties of Feeding Sheep *in Wheat.*— Now many Farmers turn their Sheep into their green Wheat that was ſown forward, and therein feed Wethers, and Couples, to great Advantage, particularly the latter; becauſe, where there are no Turneps, or Rapes left, then the Wheat ſupplies the Ewes with Milk, and helps to fatten the Lambs a-pace for an early Market, oftentimes free of any Danger of ſpoiling the Crop. On the

the contrary, it often increaſes it, by keeping the Wheat from ſpending itſelf too ſoon in Growth in warm wet Seaſons, and thereby cauſes it to ſhoot the ſtronger: For now the Knot is ſo cloſe to the Root, that the Sheep cannot take hold of it, and ſo will remain, till about the firſt Week in *March*, when it commonly begins to ſhoot, though the Knot commences its Formation from the firſt Spiring of the Wheat; and it is from this Bunch, or Knot, that the Forks make their Shoots, that is, the one, two, three, four, five, or ſix Stalks that afterwards grow up; and therefore, if this firſt and loweſt Knot is once bit, it is dangerous, on Account of the diminutive, or ſecond Shoot or Knot that ſucceeds it, which is never ſo ſtrong as the firſt, and then the Ears grow in a ſmall, proportionable, dwindling Bigneſs, to the Farmers great Loſs, much like to the ſecond Shoot of Graſs, that ſeldom is worth more than a fourth Part of the firſt: So that, in this Piece of Huſbandry, there ſhould be uſed a great Deal of Diſcretion. For Example, if it be a poor Piece of Ground, that the Wheat grows on, then the Undertaking may prove fatal to the Crop, becauſe it has not Strength to puſh it faſt enough up, after it is eaten down, to make it out-run the Weed; and, if it does not do this, the Weed will get the better of the Wheat, and likely deſtroy the Crop in a great Meaſure; but if it is a dry Piece of Land, that is in good Heart, and the Wheat is ſown forward, and clear of Weeds, then, though it is thin at firſt, this Method of Feeding it, in the Spring-time, will thicken it, and make it branch into more Stalks, more Knots, and larger Ears.

How a Farmer ſuffered a conſiderable Loſs, by indiſcreetly Feeding his Sheep on Turneps.— This Farmer I know very well, and that he loſt ſeveral of his Flock by the Gripes, and the White-ſcour, for one commonly follows the other; occaſioned by Feeding his

his Sheep too long on the dug up Pieces of his Turneps; by which they were obliged to ſwallow the naſty Earth that accompanied the Pieces, and ſtuck about them; and being almoſt ſtarved on this Food, he gave them a freſh Bite of Turneps, which they fed ſo greedily on, that both brought them under the White-ſcour and Flux. Now in this one Caſe, as well as in Thouſands that I have, and may publiſh, appears the infinite Value of Teaching the Practice of Huſbandry, by the Experience of other Men's Miſtakes and Harms. This was an old Farmer, and likewiſe a Sheep-jobber beſides, for many Years; that is, one who uſed oftentimes to go, from our Parts, into the *Weſt* Country to buy Flocks of Sheep, and ſell them to the Farmers of *Hertfordſhire*, *Buckinghamſhire*, and *Bedfordſhire*, and yet committed this groſs Miſtake; not for Want of Money to maintain his Sheep better, but by his egregious Folly in forcing his Sheep to eat the Turnep-ſhells, and dirty Pieces, till they were almoſt ſtarved, before he gave them freſh Turneps; whereas had he given his Sheep more Turneps in Time and ſome Hay, or Pea-ſtraw, beſides, as moſt good Huſbandmen do, he had not ſuffered as he did.

CHAP. XII.

Of Hedging.

THE Method of making or plaiſhing Ditch-hedges in Chilturn *Countries.*— *January* is one of the propereſt Months in the whole Year for this Purpoſe, for laying down or plaiſhing Hedges of Sallow, Aſh, Haſle, Maple, Oak, Beech, Witch-Elm, *&c.* which in *Hertfordſhire* we commonly make at every nine Years End when the Field is under a

Wheat-Crop, becauſe this, and the *Lent*-crop, guards it from the Injury of Cattle; ſo that the third Summer, when the Land lies fallow, the Hedge, if it is a thriving one, will get high enough out of the Reach of Horſes, Cows, or Sheep, for which Purpoſe, all Hedges, that have a Ditch belonging to them, ſhould have the Mould thrown out of it, a Spit or two Deep, on the Hedge-roots, which will greatly contribute towards forwarding the Growth of the Wood, by the Rain's waſhing out the Salts of ſuch leafy Ditch-earth on the Roots. But, for the better ſecuring the Safety of new-made Hedges againſt Cattle, there is generally a Covenant inſerted, in almoſt all *Chilturn* Leaſes, for defending them with a Dead-hedge, or Rails, *&c.* the Dead-hedge is made by driving down Stakes of four Feet and a Half long, about four or ſix Inches into the Earth, at two Feet aſunder, and then by weaving in long Thorn, Buſh, Haſle, Sallow, Aſh, Maple, or other Hedge-wood, it will laſt two Years, and then may be made into Faggots, for Burning; which Work, with us, is made for a Penny a Pole, provided the Wood and Stakes are lain on the Spot of Ground ready for the Work-man: And, indeed, this Piece of Huſbandry is perfectly neceſſary to be erected againſt all new-planted, or old Hedges new-made, on the ſmooth Side of them, that are expoſed to the Cropping of Horſes, Cows, or Sheep, for it is a Maxim among Farmers, that a Hedge, ſo preſerved, will pay as well as Corn; that is, the Ground, on which ſuch Hedge ſtands, will bring as much Profit to the Owner, as if Corn grew on the ſame; eſpecially, if the Hedge conſiſts of only Sallow and Thorn planted together; for theſe two not only yield Profit by their Fire-wood, but ſecure the Field againſt the Invaſions of Man and Horſe, and other Cattle; becauſe the Sallow may be all cut out cloſe to the Ground

Ground at ſix Years End, as they ſtand a little forwarder to the Inſide of the Field, than the Thorn does, and Faggots made of it, which we commonly ſell for fourteen Shillings a Hundred: But the Thorn muſt remain growing till twelve Years End, when, by that Time, the Sallow will recover its former high Growth, and be cut with the Thorn together, leaving ſuch a Part of both behind, as will be enough to make a ſtanding Hedge plaiſhed in a clever Manner, and become a Fence of three Feet high, at leaſt. Obſerve this as a ſtanding Rule, that you make your young Hedges forward in *November*, or *December*, and they will get a Year's Shoot extraordinary in nine Years Time; for, if you make ſuch a vigorous Hedge late in this Month, *February*, or *March*, both Stumps and Plaiſhes will be apt to bleed, and run out their Sap, to the great Weakening and Decay of the Hedge. But an old Hedge is not ſo apt to *bleed*, as we call it; therefore, ſuch a one is beſt made in this Month, *February*, or *March*, and then this will likely get a Year forwarder in nine, than if it was made too early, becauſe an old Hedge is not ſo apt to bleed and run out its Sap as a younger one is. And this ill Property attends the making an old Hedge in *November*, or *December*, its Stumps and Roots being, through Age, got hollow or ſpongy, the Wets are apt to ſoak into them, make a Lodgment, and rot them; but when ſuch an old Hedge is made in a Spring Month, the new Shoots and Heat of the increaſing Sun, ſuddenly drying away Moiſture, will in a great Meaſure prevent the Misfortune; therefore make ſome of your Hedges forward, and others later, that you may manage this moſt neceſſary Part of Farming, to the greateſt Advantage, and have Wood to burn at a due Age. For as the Verſe or Proverb ſays—— New Beer, new Bread, and green Wood will make a Man's Hair grow through his

Hood —— Plaiſhes are cut in pretty near the Bottom Part, as can well be done, and the Plaiſh or live Stick muſt be bent eaſily and warily, to lie rather inwards, and the Head or End of it outwards, cutting up the remaining Stump, or Piece of the bent Plaiſh, ſmooth, low, and ſloping, the better to ſhoot off the Wets, and make new Branches or Shoots. A Work-man contrives to lay as much of the Quick at Bottom as poſſible, becauſe here the Attacks of Hogs, and other Cattle, are firſt made; and, if there is not live Wood enough to fill up the whole Hedge, then the upper Part muſt be compleatly furniſhed with dead Wood. If a live Stake bends too much inwards, cut it about four, eight, or twelve Inches high, with a Chop down the Part of the Middle of it, and put a Chip in the Gap; thus it may be made to ſtand to your Deſire and ſhoot out in more Branches for ſo doing, always taking Care to leave as many live Stakes as are neceſſary, for theſe admirably well ſtrengthen the Hedge. When the Hedge is *riddered*, as we call it, that is, when all the ſuperfluous Wood, that is not to be kept in the new Hedge, is taken out, and when the Earth of the Ditch is thrown on the Roots, and when all the Wood is plaiſhed down, the next Work is to eddow the Hedge. Now what I mean by Eddowing a Hedge is this: The Work-man gets ſome Briars, or ſome long Sticks about half an Inch, or an Inch in Thickneſs, and twiſts them about the Heads of the Stakes, in order to bind the upper Part of the Hedge firmly together; and, for managing this chief Article the beſt Way, a good Work-man will twiſt his Eddows againſt the Plaiſhes, becauſe thus they bind the tighter. Others eddow their Hedges the ſame Way the Plaiſh lies, which is wrong. Some, again, will put or place one Eddow before another; others will work them even; but then they are not ſo ſtrong as when one is

is worked before the other; becauſe, in this Manner, one keeps the other from riſing. Now the Benefit of a Ditch-hedge (which is the beſt of all others) is, that it is a Sort of double Fence for keeping out Cattle, eſpecially when a rough Brow of Thorn, that grows among it, is laid Slope-ways, on the Outſide next to the Ditch, which adds much to the Security of it, and diſcourages Cattle from attempting a Breach.

The Management of a Foot-hedge.—— A Foot-hedge is one that has no Ditch belonging to it, but only what we call a *Flower-bank*; that is, ſome Earth that lies next the Hedge, thrown over the Roots with a Spade, as ſoon as the Hedge is riddered, or prepared for it, ſo that with the firſt Original, or firſt raiſed Flower-bank, the whole Riſe of Earth in not above a Foot, or eighteen Inches from the common Level of the Ground. Now theſe Flower-banks are generally made to inground Hedges or Fences; or to thoſe Hedges that lie next to narrow Lanes, which are not wide enough to allow a Ditch. In this Caſe, we only throw up freſh Mould at the making of the Hedge, and make this Foot-hedge, is all Reſpects, as we do a Ditch-hedge, with this Regard to both Sorts, that, where Sheep only go, then we leave the new-made Hedge but three Feet high; but, where great Cattle go, then four Feet high. We alſo take particular Care every Time we make or plaiſh a Foot-hedge, to leave an old Stake, at half a Pole Diſtance in the ſame for a Guide, or Land-mark, to ſhew how the former Eddow run, in order to ſave and prevent Diſputes; for there are too many of thoſe villainous, and commonly petty Farmers, who make no Conſcience of what we call *Driving a Hedge*; that is, at every making of a Foot-hedge (for they cannot well do it in a Ditch-hedge) they take the Opportunity of driving in their Stakes further into another Man's Ground,

Ground, than they ought to do, which I have known wilfully done, and ſo hitch a little at a Time of another Man's Land into their own Bounds, notwithſtanding the Curſe is ſo plainly denounced againſt them — *Curſed is he who removeth his Neighbour's Land-mark.*— But this is not the only Damage that relates to Hedges. There are others: As when a rich Man ſuffers his Trees to hang over his poorer Neighbours Hedges, to the killing of Part of them by their Drip: Or, by the great Cover of their Heads, and Run of their large Roots, damaging, perhaps, half an Acre of Corn out of one Acre. It is true that Part of the Heads of the Trees may be cut off, and Part of the Roots dug up by the Party agrieved; but there are many poor Tenants that paſſively ſuffer theſe Wrongs, rather than carry Matters to ſuch Extremity; which calls to my Remembrance a Paſſage, at Page (99) in that excellent Book, intituled, *Secrets of the inviſible Word; or Hiſtory of Apparitions* — Where it has theſe Words: — *I had much rather have an unjuſt Enemy draw his Sword upon me, than an injured poor Widow cry to Heaven for Juſtice againſt me; and I think I ſhould have much more Reaſon to be afraid of the laſt, than the firſt, as the Effect is likely to be more fatal.*— But I wiſh I had no further Reaſons to write hereafter on Impoſitions in Diſcharge of my Conſcience as an Author, *&c.*

Of the Management of a Beechen Hedge.— Now, and all the Winter, the Benefit of the Beechen Hedge is felt by thoſe Cattle who receive Shelter from it, againſt the Severity of cold Winds, and driving Snows; for this excellent Hedge has this ſingular good Property belonging to it, above moſt others, it retains its deadiſh, large, brown Leaves, till the green ones come to puſh them off. Hence it is, that our Country-men ſay, A warm, cloſe, high Hedge, is half the Cattle's Meat in Winter, in cauſing that which is given them to do them the more good. A

Beechen

Beechen Hedge is likewiſe of greater Service than all others, when planted on a chalky, or gravelly, dry, loamy Soil, particularly in the former, where hardly any other will grow to Profit: But this aſſuredly will, and that in an extraordinary quick Manner, by running up into a high, thick, large Hedge, and return the Owner in twelve or fourteen Year's Time, after Planting, a great Deal of valuable Wood, as I have truly experienced the ſame in my own Ground. But ſuch a Hedge will anſwer ſtill a greater Profit, if it is not cut and plaiſhed, but let to grow, from its firſt Planting, into ſtraight Sticks, or cloſe Trees; for then, in a few Years, it will become ſuch an impregnable Fence, that no Horſe, Cow, or Man, can well make a Breach through it, and therefore is the moſt proper Wood, of all others, to incloſe and fence in Fields, or Parks, whoſe Soil is of the chalky, hurlucky, or maumy Nature. But in Caſe the Owner will plaiſh and cut ſuch a Hedge (which is a Wood that naturally diſagrees with the Knife) as many do, the Work-man muſt be ſure to take Care to cut the Plaiſh very thin on the bent Side, even thinner than he does any other Wood, becauſe this Sort is very prone to endeavour its Growth in the perpendicular Tree Mode, and thereby raiſe its Plaiſh, if it is left of too great Subſtance at the Cut or Bent, and cauſe a Hollowneſs in the Hedge, ſometimes wide enough to let a Sheep through it. But, in making any Hedge, there ought this particular Care to be taken, that it is not made in a hard Froſt, nor too late in the Spring. The Damage ariſing from the firſt will be, that the Froſt will make the Plaiſhes fly; that is, when the Work-man makes a Chop with his Bill, and afterwards bends the Plaiſh, to lay it down, it will quite ſeparate, and then it is ſpoiled; which mild Weather prevents, for then the Plaiſh will bend to Deſire, and yet not ſeparate from the remaining Stump: Likewiſe, if a Hedge is made too late in the Spring-time, when the Sap is riſen, or to write more

more properly, when the Sap is ſo rarefied and thined, that the Buds appear ſwelled, and the Leaves ready to come out, then it is dangerous making or plaiſhing a Hedge; becauſe, by the Firmneſs of the Sap, the Rind will part with the Wood, and then the Conſequence will be, having a dead Plaiſh in the Hedge, inſtead of a live one, to the great weakening and damaging of the Root.

Of Vale-Hedging, or how they plaiſh and manage their live Hedges in the Vale of Ayleſbury.— In the Vale of *Ayleſbury*, their Hedges conſiſt, for the moſt Part, of Buſhes and Sallow. The Thorn for the Fence Part, and the Sallow, with an Elm, or a white Wood-tree planted here and there, for Fuel and Timber. The Thorn and Sallow are cut every twelfth Year; and, when they cut or make the Hedge, they do it this Time in a different Situation, to what they do at the End of the next twelve Years: Which to explain, it is to be obſerved, that here they drive no Stakes, nor leave any in their Hedges, when they make them, as we do in the *Chilturn* Country, where we let a live Stake remain, or drive a dead one in at every two Feet Diſtance; but in the Vale, for Want of Wood enough, they only let the outſide or inſide ſhort buſhy, or Thorn-ſtuff, ſtand to grow up for a Fence; accordingly, if they leave the Buſh, or ſhort thorny Part, this Time next the Ditch, at the End of the next twelve Years, they leave the ſhort thorny Stuff next the Field, and cut the Sallow out every Time, cloſe to the Earth. And theſe Vale-Hedges are ſet at firſt about eighteen Inches in Breadth, to allow for this Management; for the Sallow grows as faſt, and as high again as the Buſh; and, with the Lop of the Elm, becomes the Farmer's chief and only Wood-fuel. When they leave the ſhort Thorn on the Outſide, next the Ditch, they generally run a dead Hedge along the Inſide, next the Field, to preſerve the young Quick from the Bite of Cattle for

for two or three Years, and truſt to the Ditch, and ſhort old Thorn, to guard it on the Outſide. Again, when they leave the old ſhort Thorn on the Inſide, next the Field, they cut all ſmooth up next to the Ditch, and truſt either to a dead Hedge without Side of the Ditch, or to the Deepneſs of the Ditch, and Shepherd's Care, to prevent the Cattle's biting the next Year's Shoots. Here they do not cut and plaiſh their Hedges; but, in Caſe they find a dead Part in the Hedge, then they cut and plaiſh ſome of the next ſhort, live, thorny Part, to fill it up. Thus, when the ſhort Thorn is left to grow as a Defence, either to the out or inſide Part, it is called, by the Vale-Men, *Backing a Hedge*; that is, it ſerves as a Back or Fence to ſave the Quick, and ſo is named an *inſide Back*, or an *outſide Back*. After this, they let the ſhort Thorn grow up, till it is twelve, fifteen, or more Years old; and, by ſo doing, the Bodies or Stalks of the Thorn get into a good Bigneſs for Burning, and pay more in the three laſt Years, than in double the Time before, clear of thoſe very ſharp Prickles, that younger Thorn is always furniſhed with.

Why Vale-Men do not make ſo much Profit of their Hedges as the Chilturn *Men do.*— And this, becauſe the Back or thorny Part, that they leave behind as a Fence, conſiſts of a wide buſhy Body and Head, ſo wide, that it drips on the young ſucceeding Quick, and very much draws off the Goodneſs of the Ground from it. Whereas, in the *Chilturn*, the Hedges are made to lie as thin again, and yet are of double the Security a Vale-Hedge is of, againſt the Breach and Bite of Cattle.

Of the Duration of Hedge-wood.— Haſle will ſtand well twenty Years in a Spring or Copſe; but in a Hedge it ſhould be made at nine, or twelve, at moſt, elſe the Hedge will ſuffer by the Decay of Plaiſhes. Sallow, after nine Years Growth, will

decay, by growing hollow. Maple will endure a long Time; but Aſh will grow, and laſt Time out of Mind. Maple is a ſoft Wood, but not ſo ſoft as Sallow; is apt to fly in Plaiſhing down, but grows as faſt or faſter than any, except Sallow. Sallow, when it grows among Thorn in a Hedge, may be cut out at ſix Years End; and, at ſix Years End more, both the Thorn and Sallow may be made at one and the ſame Time into Faggots, or otherwiſe, as it is generally practiſed in the *Chilturn* or flinty Country in the greateſt Perfection, and to the greateſt Profit, as I ſaid before.

The great Advantage of ſcouring up Ditches every Time the Hedge is made.— Ditches pay better than any other Part belonging to a Hedge, becauſe the Earth, that is, every Time the Hedge is made, thrown out of it on the old Stumps or Roots, nouriſhes the ſucceeding Quick, and cauſes it to grow a great Pace; and, at the ſame Time, by its Breadth and Depth, becomes one main Part of the Fence: So that all Tenants ſhould be ſtrictly obliged to ſcour up every Ditch, every Time a Hedge is made, as being a Work that very much contributes, both to the Landlord's and Tenant's Profit: To the Landlord, as an Improvement of his Eſtate, for, where fine, large Hedges grow in it, it will let for the greater Rent: To the Tenant, for increaſing his Faggot-wood, and ſecuring his Fields from the Damage of Cattle.

Of the great Diſadvantages that often happen by the Neglect of ſcouring up Ditches.— Of all the Tenant Farmers I ever knew, I knew none that ſo readily obſerved Scouring up Ditches every Time he made a Hedge, as one who rented a Farm in the Pariſh of ————, in *Bucks*, that contained many brave incloſed Fields, whoſe Soils were for the moſt Part gravelly, chalky, and dry Loams. I ſay, this Man knew ſo well his own Intereſt, that as often as he made

made either an outside Hedge next the Road, or an inland Hedge, that parted his own Ground, he always scoured up the Ditch; when his Neighbour, who rented such another Farm, would hardly ever scour up either an outside or an inland Ditch, for twenty or thirty Years together: Hence it comes to pass, that many a Ditch is lost, or, at least, occasions Disputes between Landlord and Landlord, or Tenant and Tenant, and, perhaps, an expensive Law suit into the Bargain, to prove or disprove the Boundary Ditch. Now there are two Reasons, or more, why some Tenants will not scour up a Ditch; one is, because he will not be at the Expence of it, though, with us in *Hertfordshire*, it costs but two Pence a Pole. A second Reason is, that if the Hedge is furnished with Sallow, or with Ash, or with Maple, the Roots will run a considerable Way into his next Neighbour's Corn or Grass-ground, and there draw so great a Share of Nourishment, as to grow into large Poles in a little Time; for, the next Tenant being obliged to manure and dress his Ground for either Grass or Corn, he by Force dresses it for his villainous Neighbour's Hedge-roots, that may run, perhaps, a Pole wide, and draw off the greatest Part of the Dung's Quintessence, and thus leave his Corn or Grass in a starving Condition, for the lesser Power must yield to the greater. Now there are too many, I am certain, of such knavish Farmers in the World, that justly come under the common Saying, *No Cheat like a Country Cheat*, because a Person is not so apt to suspect so much Villany under a low Heel, and a round Frock, as, in a City or great Town, a well-dressed Sharper, who, by their Numbers here, and their political wicked Intentions, cause even many Strangers to be suspected ill Persons, that are not so. But that Tenant, who will not scour up an outside Ditch, must be a bad one, indeed; because he

hereby makes his Hedge the weaker Fence, and the growing Wood to be of the leſs Value. Where, therefore, ſuch a bad Tenant lives, that will not ſcour up his Ditch, becauſe he will get Part of his Neighbour's Ground to nouriſh his Hedge, he ought to be made honeſt by his Landlord's Inſpection, and forcing him to obſerve punctually the Covenant of his Leaſe, which obliges him to ſcour up all Ditches, and thus prevent his ſuffering Neighbours Cutting through his Hedge-roots in the midſt of Summer, which I have known done by the Mattock, all thoſe that run in his Ground, and ſo very much ſpoiled the Spoiler's and Landlord's Hedge.

—Hedges are uſually made from *Allhollantide* to *Lady-day*. If one is made too thick, it will not grow ſo well; the thinner the Hedge is made, the better it grows, if there be Wood enough left to make a Fence. And with us in *Hertfordſhire*, when we begin to lay our firſt Spit of Earth out of the Ditch, on the Hedge-roots, we lay ſuch firſt Spit on the loweſt Part, and ſo proceed by laying more Earth higher, till we cover Part of the outſide Stumps, which, with leaving a low, looſe Brow, low enough to the Ditch, it will become a good Fence, eſpecially, where the Work-man or Hedger is skilled enough, and knows how to leave *live Keepers* (as we call them) which are perfectly neceſſary to be done; becauſe they will not only keep up the Plaiſhes in their Places, but will furniſh the Hedge, the next Time it is made, with the beſt Plaiſhes, of all others, for theſe grow on the Outſide of the Hedge always. Now theſe *live Keepers*, as we call them, are a live Piece of an upright Pole, that is cut off within a Foot, or eighteen Inches of the Ground, at the Time the Hedge is made, and left by all ſuch Work-men who are Maſters of their Buſineſs, as many are in *Hertfordſhire*, where they pretend to out-do all Work-men in this Kingdom,

for

for felling Trees, making new Hedges, and plaiſhing old ones; for this Purpoſe, they are ſometimes ſent for to diſtant Parts to perform the ſame. Therefore, whoever hires a true *Hertfordſhire* Servant, from the *Weſtern* Part of it, may depend on him to be a good Hedger. Therefore, although Gentlemen may be at ſome extraordinary Charge in the Wages of ſuch a valuable Servant, more than for one of their own Country, yet, how much he will compenſate it, may be eaſily comprehended, even by this one Article of making Fences or Hedges in the beſt of Manners, which is one of the beſt Branches in Huſbandry, where it is wanted. On this Account, I am perſuaded I ſhould have Orders for ſending many ſuch Servants to different Parts, if Gentlemen were duly apprized of the great Importance their Service is of, in this, and other Reſpects.

CHAP. XIII.

Of Felling Spring-wood.

Of felling and diſpoſing of Spring *or* Copſe-wood. — This Month is a very proper Time to fell all Copſe or Spring-wood, and finiſh the Work thereof, becauſe next Month is generally a very buſy one, with many Farmers, who ſow conſiderable Quantities of Ground, with Peaſe, Beans, and Oats. In our *Weſtern* Part of *Hertfordſhire*, we fell our Spring-wood at twelve Years Growth; and as it generally contains Aſh, Sallow, Haſle, Maple, *&c.* we either have it made into Faggots to ſell into the Vale of *Aylesbury*, or elſe fell it in Ranges, and ſell it according to the Number of Poles, for making Hurdles, Chair-frames, or other Uſes; and the Quantity

tity of Fire-wood beſides, at the Rate ſometimes of twelve, or eight, or ſix Pounds an Acre; for here we ſave none for Hoops, or Hop-poles. But, in the *Eaſtern* Part of *Hertfordſhire*, their Spring-wood, for the moſt Part, runs on Horn-beech, which being a very hard, but good Fire-wood, is a ſlow Grower, and therefore do not fell it under ſixteen Years old. Alſo about *Chaffon*, in *Bucks*, they have many Acres under the Growth of Birch, which they fell for Broom, Fire-wood, *&c.* And a little nearer *London*, about *Uxbridge*, their Copſe-wood is chiefly Haſle, and bought by, or for the Hoop-bender, altogether. And ſo, in many other Parts, there is Variety of Spring-woods and Managements; as Yew Coppices, which require a long Time before they be felled: Others of Alder, Withy, Willow, or Oziers; and, in *Norfolk* and *Suffolk*, they fell their Broom and Whin Plantations, which, by their five, or ſeven Years Growth, appear as high and like Cops-wood, at a Diſtance. In any of theſe, there is required very good Management to make the Ground pay in Coppice-wood as much as indifferent Land will with good Huſbandry in Corn or Graſs. In our *Chilturn* dry Country of *Hertfordſhire*, we find the Sallow-plant to pay the beſt of all others. An Acre of all Sallow has been ſold, with us, for twelve Years Growth.

How a Perſon endeavoured to out-wit a Farmer in buying Faggots of him.— A Man bargained with a Farmer for a conſiderable Number of Faggots, and told him he would pay for them, when he had fetched the laſt away; to this the Farmer agreed, without any Suſpicion of Fraud from the Buyer; but he took Care to let the laſt Parcel of Faggots remain in the Field, till he tired the Farmer's Patience. On this, the Farmer got a private Witneſs in Hearing, and demanded his Money for the Faggots,

gots. The Buyer ſaid, he had bought all his Faggots, and he would pay for them, but would fetch them away when he thought fit. Now, this Promiſe of paying being thus heard, he was told, for Anſwer, he ſhould be made to pay forthwith; and then he complied. Which brings to my Memory a Caſe almoſt parallel to it, as it happened at *Springfield*, near *Chelmsford*, a pretty many Years ago: When a Butcher bought a conſiderable Number of Lambs, of the Gentleman Owner, and agreed to pay for them, when he had fetched the laſt away, and he would begin to kill ſome off directly (for he was a neighbouring Butcher) but he took ſuch Care to delay killing them, that the Gentleman, by keeping them a great while longer than his Expectation, loſt a conſiderable deal by the Bargain.

How a Farmer may bite the Buyer in the Sale of Faggots.— In our Parts, it frequently happens, that when a Hundred of Faggots, or more, have been ſet up as hard Wood, the hard Wood is ſet up in Parcels, next to ſome bound Faggots, and is by the Work-man eſtimated as ſo many bound Faggots, according to the Quantity of the looſe or hard Wood. When they are all made up in Hundred and Half-hundred Parcels in the Field, the Buyer views them, and, if he buys them, for the Farmer to bring them to his Houſe, it is in the Farmer's Power to cheat him, for there is hardly any ſuch Thing as knowing the exact Quantity of looſe Wood after it is loaded, and ſhot out of the Cart again: And, if he ſhould cheat him, it will be hard Wood, indeed.

The Difference of burning green Wood and dry Wood. — It is an excellent Piece of good Huſbandry, to houſe your Fire-wood, and ſpend one Year's Stock of it under another, for then ſuch Wood will go near as far again, as otherwiſe it would; as may be proved in burning the green Sort, that requires ſo much Blowing, as waſtes a conſiderable Part of it, be-

before it can be made to burn; or, to be more particular, a third Part of the Faggot is ſometimes conſumed, to dry and make the other Part burn.

CHAP. XIV.

Of Recovering ſtolen Fowls.

A *Way to find out the Thief, and recover ſtolen Fowls.*— In laſt, and in this Month, you have Reaſon to think yourſelves in more Danger from Thieves, than at any other Times in the Year; for Thieves in this Month are more than ordinary under Temptations to commit their Rapine, by the Favour of the long, dark Nights, and the *Chriſtmas* Holidays: Againſt which Time, moſt Thieves are eager in the Purſuit of their Prey, for getting Money to defray the Charge of paſſing their *Chriſtmas* Seaſon in Mirth and Jollitry: Therefore, now cauſe a ſharp Look-out, particularly in the Guard of your Yard-poultry, to ſecure them from the worſt of all Vermin, the two-legged Sort. But in Caſe they ſhould take the Advantage of out-witting your Conduct, while you are aſleep, learn, by the following Account, to take the Thief, and recover your loſt Goods; as it was done by the Contrivance of an ingenious Farmer living towards *Beaconsfield* in *Buckinghamſhire*, who, miſſing his Fowls in the Morning, thought of this Device: He believed theſe Sort of Thieves would on two Accounts ſell the ſtolen Fowls at a diſtant Market; firſt, becauſe it was the readieſt Way to diſcourage Purſuers; and next, becauſe the nearer *London*, the more Fowls would fetch; he, therefore, diſpatched his Maid-ſervant to *Watford* Market on the *Monday*, that, I believe, was twelve,

twelve, or more Miles, from the Farmer's Home, miſſing *Amerſham*, *Cheſham*, *Uxbridge*, and *Rickmanſworth* Markets, that were nearer, and there cauſed her to lie at the Houſe of his Acquaintance, whom he engaged to aſſiſt the Maid: Accordingly, they roſe up very early, and viewed a Man croſſing the Road, with a Baſket on his Arm, and dogged him into the great *White-hart Inn* Yard, where a Higler had a Shop, but did not yet moleſt the Thief. Preſently after they ſaw him come out, and ſet his Baſket down on a Bench, by which they perceived, they had not dealt. On this, they made towards him, but the Rogue, immediately ſuſpecting them, took up the Baſket of Fowls, and run the Back-way with them, into the Fields, and ſeveral after him, till they took him; and on Search, the Maid ſaid, ſhe would ſwear to the Fowls, which ſent him to Jail, and at his Trial, pleading Guilty, he was tranſported.

How a Farmer and his Son took a Thief in the Act of Stealing his Poultry.— In 1741, I was at the Aſſizes held at *Hertford*, where, after I had been impanneled on ſeveral Juries on the *Niſi prius* Side, that temperate, wiſe, and good Judge, the Lord Chief Juſtice *Willes*, after all the Trials were over here, undertook to aſſiſt his Brother Judge, on the Trials of Life and Death: One of which was brought on by a Farmer, for an Attempt to ſteal and carry off his Yard-poultry. The Caſe was this: Two arch, luſty Rogues, and old Offenders, had ſacked all the Fowls in the Night-time, except the Cock, and carried them off into the home Cloſe; and being there, they ſaid among themſelves, we have left the Cock behind, let us return and fetch him, for he will help to ſell the Hens the better: Accordingly, they went back, and, being in the Hen-houſe, the Farmer and his Son went in alſo, and then began a Fight; but, in the Scuffle, one got away, and the

other was taken, tried, and pleaded Guilty, aſking the Farmer's Pardon before the Judge for his Offence; but that did not avail him any Thing, for the Jury brought in five Shillings Damage, though the Farmer had his Fowls again, to the Surprize of the Judge; who looking ſternly at them, one anſwered, he had been an old Offender, and uſed to ſteal their Plough-irons out of the Field.

How two Rogues combined together to ſteal Game-cocks.— One of theſe lived at *Uxbridge*, the other at *Amerſham*, in *Bucks*, and agreed, that what Game-cocks the *Uxbridge* Man ſhould ſteal about the Country, he ſhould ſend to him at *Amerſham*; and the *Amerſham* Man was to do the like, by ſending all thoſe Game-cocks he ſhould ſteal in his Parts, to *Uxbridge*; accordingly, they carried on their Villany till it was diſcovered, and they apprehended in *April*, 1743.

How a crafty Villain carried on his Stealing of Sheep *for ſome Years.*— This Rogue lived not a great Way off the Town of *Tring* in *Hertfordſhire*, where he carried on the Trade or Buſineſs of buying Sheep in the *Weſt* to ſell again; and he did this for ſome Years, but it was partly to ſcreen his ſtolen Goods that they might not be diſcovered, to do which, he took this Method: After ſeveral ſucceſsful Attempts, he made one near *Hempſtead*, from whence he drove, I think, ſix Sheep away very early one Morning, but happened to be diſcovered before he reached *Barkhamſtead*; and being taken and ſent to *Hertford* Jail, he confeſſed his Way was to brand his ſtolen Sheep with a Trencher dipped in Pitch, which was ſo large, as to hide the Owner's Brand-Mark and, marking all his own Sheep with the ſame, he eſcaped Diſcovery, till he committed this Fact.

CHAP.

CHAP. XV.

The Copy of a Letter, relating to Improvements in Huſbandry.

The Copy of a Letter from a learned Gentleman, ſhewing the cheapeſt and ſhorteſt Way to drain wet Lands, to the greateſt Advantage.

SIR,

"HAving been a conſtant Reader of yours, and "having obſerved the Candour with which "you promiſe to ſatisfy the Doubts of any of your "Readers, and anſwer their Letters, and Queries, "I could not diſpenſe with myſelf the giving you "this Trouble, to deſire that, at the ſame Time "you take Care to inſtruct your *Hertfordſhire* "Neighbours, in the uſeful Art of Huſbandry, "you would extend that generous Deſign to the reſt "of your Country-men. You will, I doubt not "ſtart at the Inſinuation, and imagine yourſelf "quite clear from ſuch a Charge; yet, on a cool De-"liberation of what I ſhall ſay, I doubt not, but "you will add to your Works, what will make "them more generally uſeful to all Parts of the "Kingdom, and prevent what ill-natured envious "Men may ſay, that you write to ſhew your ex-"cellent Qualifications in the Art you profeſs, with-"out an Intention of thoroughly inſtructing the reſt "of your Profeſſion. You will ſay your Correſ-"pondent is very free, but you muſt allow it "beſt to tell of a Fault, whilſt it is in your "Power to alter it. But to the Point; it is firſt of "all neceſſary in all Sciences, to acquaint the Stu-"dent with the technical Terms belonging to it;

" and it is certainly as neceſſary for the Farmer to " underſtand the Terms, his Author uſes; and as " all Countries differ in Names of Things, and U- " tenſils, ſo it ſhould be highly proper for you, as " is common in moſt Authors, at the End of ſome " of your Books, to explain thoſe Terms that are not " in common Uſe in all Parts of *England*. It would " alſo be of more general Uſe, to give the Figures " of the Ploughs, and other Utenſils; for it is mo- " rally impoſſible for a Country Wheel-wright, or " Plough-wright, to make any one of the Ploughs " you deſcribe, without a Scheme drawn. It will " be alſo as neceſſary, for the general Good, to de- " ſcribe the Seed, Nature, and Method of Sowing, " taking Care of it, whilſt growing; that is, by Weed- " ing, Tranſplanting, *&c.* Reaping, Preparing for " Sale, *&c.* of thoſe Vegetables, not in common " Culture: As Wood, Weld, Flax, Hemp, Tea- " ſle, *&c.* for, certainly, it is impoſſible for any " one, not uſed to the Culture of any ſuch Plant, " without the moſt accurate Directions, to ſucceed " in an Attempt to cultivate it; and, I doubt not, " but that there are Hundreds of Plants, you would, " yourſelf, be much puzzled with, without the moſt " plain Directions; and as I am now finding Fault " with you, I will even add another, your Publi- " cation of your Monthly Books, after the Month, " for which it is deſigned, is paſt, ſo that they can " be of no Uſe, for at leaſt ten Months to come. " It is now *February*, and you have not yet pub- " liſhed that for *November*, and which ought to " have appeared to the World in *October*, or, ra- " ther, in *September*, that the Country Farmer may " have Time to conſider his Work before-hand. " Now, Sir, I will give over this ungrateful Sub- " ject, for, faulty as you are in theſe Reſpects, you " are greatly uſeful to your Country in others, in ac- " quainting the World with the Miſtakes of others,

" and

" and endeavouring to improve the Country-man's
" Crop, and conſequently his Fortune. And as it
" is the Duty of every Member of a Society, or
" Common-wealth, to impart what is uſeful to the
" Good of it to others, ſo ſhall I curſorily take
" Notice of ſome Improvements in Uſe here, I mean
" in *Lancaſhire*. In order to drain our Land, we
" have made Uſe of the Plough deſcribed by *Mor-*
" *timer*, as uſed in *Cambridgeſhire*, 3 *Edit. pag.* 40.
" to no Purpoſe, it always running up in a ſmall
" Time; as alſo, we have uſed *Switzer*'s Method,
" in his *Practical Fruit Gardener*, pag. 25. to as lit-
" tle. The only ſure Way, as Experience tells us,
" is to dig off the firſt Coat of Graſs-head, and then
" dig two Spades Graft deep, each Spade twenty
" Inches long, and growing down gradually, to the
" Breadth of four Inches. To take out the Dirt,
" we make Uſe of an iron Scoop, with a wooden
" Handle. When the Drain is made, throw in
" Wood, Stakes, Boughs, Bruſh-wood, *&c.* The
" largeſt all loweſt, to the Height of two Feet, and
" ſo cover, and you may ſafely plow, cart, or drag
" any Weight over without Fear, though it was
" before an arrant Bog. A Man's own Judgment
" muſt direct what Number of Drains to make in
" an Acre; I have had an Acre drained, the Wood
" fetched, *&c.* for twelve Shillings. Our Acre is
" eight Yards to the Rood, above double yours,
" the Proportion being 64 to 27, ſo that, if this
" Method was tried in the fenny Country, it would
" undoubtedly anſwer, and make them throw by
" their Draining-Plough. *July*, *p.* 139, the Let-
" ter, you have publiſhed from your *Cheſhire* Cor-
" reſpondent, is a very juſt one, except in one Ar-
" ticle, which I ſhall remark; it is, he ſays, im-
" proper to marle black Earth, if wet and ſoft;
" he is in the Right, if it is not to be drained;
" but it is not to be ſuppoſed, that any one, but

" a Fool,

" a Fool, will pretend to under take it, I dare an-
" ſwer not one in five Thouſand; and, if drained,
" it will ſink, and conſolidate to as great a Firm-
" neſs, as any Land is capable of. A noted In-
" ſtance of this there is in the file Part of this Coun-
" try, where, from a Gentleman's Houſe, they could
" only ſee the Top of the Steeple of a Church, at
" about a Mile's Diſtance, a large Moſs lying be-
" tween, which being now laid dry, they are able
" to ſee the People walking in the Church-yard;
" no Doubt then can be made, but that Moſs, in
" a few Years after lying dry, would become as
" ſound as any, and as capable of Improvement.
" Your Correſpondent is in the Right to ſay, ſuch
" Ground requires more Marle than any other ought
" to have; but is in the wrong, as to the Reaſon.
" I never heard it was to lay ſuch a Coat, as to
" make it capable to bear a Plough; no, we think
" the Uſe of Marle, is to mix with thoſe ſtringy
" Fibres, of which the Moſs conſiſts, and add a
" Quantity of earthy unctuous Materials, for the bi-
" tuminous Salt, with which the Moſs abounds, to
" work on, without which, Vegetation would not
" be performed. As to what he ſays of a Doubt he
" has at preſent, whether Marle would be of Ser-
" vice to your Lands, there is little Queſtion to be
" made of it; and I make as little Queſtion of your
" having it, having never ſeen any Clay-ground
" (if, on digging a moderate Depth, it did not come
" to Rock) that ever failed of Marle; your Me-
" thod of preſerving Potatoes is the beſt; yet they
" are not a tender Root, I having kept forty Horſe-
" loads together in a Ground-room, with only one
" Bed of Straw under them, and another over them,
" in the great Froſt: Indeed, I threw ſome Sand
" over all, about ſix Inches thick, and have never
" had any ſpoiled. I think I have now tired your

" Pa-

" Patience ſufficiently, and therefore conclude, with " aſſuring you, I ſhall continue to be

your conſtant Reader,

and humble Servant,

February 10, 1742.

AGRICOLA.

The Author's Anſwer to the foregoing Letter.—— The Author of this Letter I am intirely a Stranger to; I only know him to be a Man of better Parts than myſelf, by the ingenious Obſervations he has made on my Works; which I am ſo far from reſenting, that I profeſs myſelf obliged to him, for endeavouring to make me ſenſible of Faults; and further, for his kind Informations, in letting me know his *Lancaſhire* Method of draining wet and boggy Grounds, *&c.* But as I cannot tell where to direct my Anſwer, *per* Letter, to him, I ſhall here ſupply it, by what I have to write, as follows, *viz.*— In Caſe any envious, or ill-natured Perſons, ſay, I write to ſhew my excellent Qualifications in the Art I profeſs, my Anſwer is, they have no Room, in my humble Opinion, for any ſuch Cenſures, becauſe the many Blunders, incongruous Words, unconnected Sentences, and, perhaps, Tautologies, *&c.* plainly ſhew, I am no Logician, nor Rhetorician, and therefore have no Pretenſion to Scholarſhip. But this, indeed, I inſiſt on, that I had rather write plain, and be well underſtood, than either with Logic, or Rhetoric, diſpute and garniſh over a Matter, which has no Foundation in my Knowledge; for uſeful Knowledge is certainly more to be gained by Practice and Converſation, than by Study and Contemplation. As to his firſt Article, that I ought to acquaint the Student with the technical Terms be-

belonging to the Art of Husbandry, I own, as he says, it is certainly necessary to the Farmer to understand; because all Countries differ in Names of Things, and Utensils. And as to my placing Figures or Cuts of the several Ploughs, and other Instruments I write of, to shew how the Plough-wright may make them by such a Cut or Figure: To this I answer, that, being confined to a limited Number of Sheets, in order to render the Price as easy as possible, to those who purchase my Books, I am prevented from affording my Readers such expensive, though useful Ornaments, as otherwise I could have heartily wished. But, as I am thus confined, hence arises a Query: Whether I ought to employ Part of the Monthly Sheets, in explaining such technical Terms of Art, or forbear doing it, to make Room for publishing, how those Acts of Husbandry ought to be performed, which in this Month are necessary to be done, for the Farmer's and Nation's Interest; I conceive, the latter has abundantly more Reason to be allowed than the former; for though there is, in Course, some Ambiguity in the Terms of a particular County, as it differs from another, yet hardly so much, but that the Farmer may make some useful Discovery from them; therefore I must postpone the Explanation of these rustic Terms to a wider Opportunity.

The next Charge is my unknown Correspondent's insinuating, as if it was my Fault my Books do not succeed each other in such Time, that they may be of the greater Use to the Public. I grant his Observation to be good; but I am forced to stay delivering one Copy, till the former is printed off. Thus, I hope, I have given tolerable Answers to my supposed Faults. I come now to acknowledge the just Regard this worthy Person shews for his Country's Good, in the Account he has sent me, how they drain their wet and boggy Lands in *Lancashire*. As

to

to Mr. *Mortimer*'s Books, I never read them, nor Mr. *Switzer*'s *Practical Gardener*, so that I am a Stranger to their Works; but this I am certain of, that the making of Drains by Spades is a very just Way, and the neareſt to that firſt publickly practiſed in *Eſſex*, where I know a Gentleman has ſo improved his Eſtate by it, that that Land, which before would not let for above a Noble an Acre, lets ſince for near twenty Shillings an Acre; and therefore, I here thank this free Correſpondent for his kind Informations, which, as he well obſerves, is the Duty of every Member of a Society or Common-wealth, to impart what is uſeful for the Good of it, to others: And therefore, it would be of more than ordinary Service to me, and the Country in general, if Perſons of Knowledge and Experience would convey to me, by Letter, any Thing that tends to the Good of Huſbandry in General, which comprehends not only the Culture of Land, but alſo many other Matters relating to the Improvement of Trees, Hedges, and Shrubs; the extracting and making of various Liquors from Fruits; the beſt Way to manage Horſes, Cows, Sheep, Rabbits, Fowls, Fiſh, Grains, Graſſes, and a Thouſand other Things, which make it the moſt copious Science of all others, for an Author to write on; wherefore he ſtands in the more Need of being aſſiſted with auxiliary Helps: For, notwithſtanding my ſeveral Years Travels, my own and Neighbours Experience, Converſations of many, and the Reading of Books, yet all is far too little to enable a better Pen than mine to write a compleat Syſtem of the Art of Huſbandry, though more than one has vainly pretended to it; and, I believe, I may venture to aſſert it for Truth, that even theſe had the leaſt Share of that practical Knowledge truly requiſite for this Purpoſe: However, as what I have wrote has been accepted, beyond my Expecta-

tation, I ſhall, if encouraged, further publiſh thoſe ſerviceable Matters that will be of great Importance to this Nation. And, for furthering this my good Intent, my humble Requeſt is, that all learned, or experienced Perſons, who have, or may diſcover any Thing that may tend to their Country's Advantage, would be ſo good as to communicate it by Letter to me; and I hereby promiſe them, to make the beſt Uſe of ſuch Intelligence, that lies in my Power; for I here openly confeſs, I believe few or no Authors ever wrote with the Help of leſs Correſpondency than I do, for I do not know, that I have above one fixed Correſpondent in the whole World at this Time, and therefore ſuch Aſſiſtance would be the more generouſly beſtowed on me.

CHAP. XVI.

The Copies of Letters for two Drill-ploughs.

Two Copies of Letters ſent the Author for his furniſhing the Three-wheel and Pulley-drill Ploughs, and a Horſe-break, to one Gentleman.

SIR,

HAving read your Deſcription and Recommendation of the Three-wheel Drill-plough, the Pulley drill Plough, and ſeveral Sorts of Horſe-breaks and Houghs, and being inclined to make Trials of their Uſe, I propoſe to ſend my Bailiff on Purpoſe to ſurvey them; for, as in other Caſes, it is poſſible that theſe Inſtruments may not anſwer, at leaſt, not in all Countries, I therefore trouble you

you now, only to desire you will, by the first Post, let me know if these Ploughs, and other Instruments, are kept ready made, and where my Servant may come to see them, and have such as he likes.

I am, Sir

Yours, &c.

May 24, 1743.

SIR,

I Have the Favour of yours of the twelfth, and am sorry none of those Ploughs, or other Instruments of Husbandry, are kept ready made, for I wanted to send my Bailiff up on Purpose, to see if they would do for our Country, and to learn the right Use of them on every Occasion; but, since that cannot be, I must be contented to take them, as others do: So I pray get for me, as soon as you can, one of the best three Wheel-drill Ploughs, one of the best Pulley-drill Ploughs, and one of the best made and best Sort of Horse-breaks. I see what the Charge will be, and I shall take Care you have the full Money paid you for them, immediately on Delivery of them, to my Friend in *London*, Mr. *J— R—n*, Merchant, in *Cornhill*, who will take Care to forward them to me in the best Manner; and, inclosed, I remit you a Bill on him, payable to yourself, or Order, at Sight, for three Pounds, three Shillings, Part of Payment. Our Land here is of all Sorts. Pray let me have these Things, as soon as they can be made well. Let them be of the very best in their Kind, and be as full and as large as you can in your Instructions how to use them to the most Advantage. You may depend, if you use me well, and they should all, or either of them,

answer the Ends proposed, you will have many Demands from this Country. *I am,*

Sir,

Your most humble Servant.

N°. 729. Exch. 3.*l.* 3.*s.*

At Sight, pay to Mr. *William Ellis*, or Order, three Pounds, three Shillings, for Value received, and place it to Account, without further Advice from

W. R.

To Mr. *J— R—n*
Merchant, in *London.*

The Author's Answer to the foregoing Letter.

S I R,

" YOur Letter Poſt-paid, of the twenty-fourth
" Inſtant, is with me, and I ſhall take due
" Care to furniſh you with thoſe Inſtruments of the
" right Sort, that, I do not in the leaſt queſtion, will
" any Way diſappoint your Expectation, and I ſhall
" with all Expedition ride and beſpeak them; for,
" as they are ſeldom made before-hand, it may
" poſſibly be a Month before I can have them rea-
" dy to deliver your Friend. Now as you have ge-
" nerouſly given me my Price, and left the whole
" Affair to my Management, it engages my Gra-
" titude to do the beſt in my Power to give you Sa-
" tisfaction. I ſhall, therefore, do what I did not
" intend, that is, give you Notice of the Day
" and Place where your Bailiff is to meet me, and
" I will go with him to the two Plough-wrights,

" where

" where the Ploughs and Horſe-break are made, to " ſhew, in the firſt Place, that there is no Fraud or " Covin made Uſe of in the whole Tranſaction; for " he ſhall take all the reſt of the Money of your " Correſpondent in *London*, and pay the Tradeſ- " men himſelf. In the next Place, I will take " Pains to get him inſtructed, in the beſt Manner I " can, in ſo ſhort a Time, how he may manage " the Inſtruments to the greater Advantage; that " ſo generous a Perſon as yourſelf (though a Stran- " ger) may have all the Satisfaction I can give you. " By which you will be convinced how hardly I " earn the Money I am to have for providing the " two Ploughs and Horſe-break, which are made " in different Parts of the Country: However, I " cannot forbear extolling your wiſe Choice, in the " ordering theſe various Inſtruments, becauſe, by " theſe two Ploughs, you are fully provided for im- " proving your various Soils; where one will not " anſwer, the other will."

How much then the greateſt Part of our Gentlemen are in the Wrong in laying out their Money, and ſpending their Time after Shadows, inſtead of Subſtances, the Multitudes ſhew by their Reſorting to Grotto's, and Pleaſure, or Muſic-Gardens, *&c.* about Town: And, in the Country, by Cock-fightings, and Horſe-racing, and other Games and Sports, that bear no Compariſon with that moſt healthy and gainful Pleaſure, of all others, the improving Eſtates by theſe excellent new Inſtruments, Planting ſelected Fruit-trees, a new Sort of ſheltering Hedges, making impenetrable Fences, by Sets of proper Trees and Shrubs; breeding the charming Buſtard and Pheaſant tame, and ſeveral other Sorts of Fowls; Brewing, after a new Method, Beer and Ale, in the higheſt Perfection, according to a Book, of a ſmall Price, that I underſtand is publiſhed, which

ſhews,

ſhews, how a vinous Sort of delicate Liquor is to be made from Malt, at a cheap Rate; the making of Cyder different from the common Methods now in Practice, and the enjoying a noble Wine, that may be made without Sugar, from that none-ſuch Cherry the black Kerroon; and doing a Thouſand other profitable Things, that may create a continual Novelty of Recreation and Pleaſure all the Year long. And, I am certain, that, if a Wine was artfully prepared from this black Kerroon-Cherry, it would vaſtly leſſen the Conſumption of foreign Clarets, becauſe it would excellently well ſupply their Place; as was proved by ſeveral Perſons (among the reſt, I had the Honour to be one) who drank it at a Gentleman's Table, and we all gave in our Opinion, it was a foreign Wine. But what was extraordinary ſatisfactory to me, beſides, the ſame Gentleman was ſo good, as to give me the genuine Receipt for making it. Since which, I have ſent twenty-eight fine improved young Cherry-trees, at one Time, to a Gentleman in *Yorkſhire*, of ſeveral Sorts of Cherries, but moſtly of this black, large, delicate, hardy Kerroon Sort, which I have, at this Time, growing in great Numbers, in Standard-trees, round my Plowed and Meadow-fields in great Perfection: And am ready to ſupply any Gentleman with what Numbers and Sorts he pleaſes of Cherry-trees, or any other Fruit or Timber-trees, or Sets or Seeds of any Kind.

CHAP.

CHAP. XVII.

Copies of Letters relating to the Helping a Gentleman to a Plough-man.

The Copy of a Letter ſent the Author from a Gentleman to help him to a Plough-man.

SIR,

IN peruſing your Book of *November*, in *Page* the ſeventeenth, I obſerve you have been ſo kind as to take the Trouble upon you, to recommend and help a Gentleman to a good Plough-man by Way of a Servant out of your Country. I have the ſame Requeſt now to make to you, if you can, to help me to ſuch a Servant as there recommended; I ſhould be glad if he can write, becauſe it is near forty Miles from hence to the Place I ſhould employ him at, which is a Town upon the *Woulds* in *Lincolnſhire*, where I have a ſmall Eſtate. The Name of the Place is *B*——, it lies between *L*—— and *C*——; it is all quite a dry Soil, and ſomething, I fancy, like the Land in your Country, or that about *Dunſtable*, much like a corkiſh Stone it turns up. I have about five Hundred Acres there, great Part old Land, that has never been plowed. We have lately had an Act of Parliament for incloſing the Liberty, and ſo ſhall have Occaſion to plow up a good Deal of it. This being againſt the Spring, I fancy it may be a proper Time to meet with ſuch a Servant that may want a Place. As to his Wages, I ſhall leave it to you to agree about, and ſhall expect a Line from you, as ſoon as you conveniently can, and hope you will excuſe this Trouble. But as I am a Chapman myſelf for your uſeful Books, and take for two more,

as

as well as have recommended them to others, ſo it rather imboldens me to aſk the Favour of you,

who am, Sir, Yours, &c.

The Author's Anſwer.

" AS you hint, I own, I am ready to oblige " any Gentleman with my beſt Services, in " helping him to a Plough-man; and as I am ſome- " what a Judge of their Abilities, I am ſometimes " capable of doing it, and ſend them, on a ſuitable " Encouragement to be allowed them, from a " Country, reputed to breed the beſt Work-men " this Kingdom affords. But, as I find your Caſe " differs from Thouſands of others, I humbly con- " ceive a ſingle Man will not anſwer your Pur- " poſe, ſo well as a married Couple I would recom- " mend to you, and that for the following Reaſons, " *viz.*

" *Firſt*, As you are going to incloſe what be- " fore was common Land, your Intereſt muſt conſiſt " in doing it, ſo as to improve the Ground in the " beſt Manner: Now, to do this, Quick-ſetting " muſt be partly the firſt Work, and therefore it con- " cerns you to have a Man from an incloſed Coun- " try, that is qualified accordingly.

" *Secondly*, He ſhould be a good Plough-man, " for herein lies the main Branch of Huſbandry. " For, as the old Saying is, a Man muſt aſk his Wife, " *Whether he ſhall get Money by her domeſtic, prudent* " *Management?* So here a Gentleman muſt aſk " his Plough-man, *Whether his Field Expences will* " *anſwer their Ends?*

" *Thirdly*,

" *Thirdly*, As your Quantity of Land is conside-
" rable, that, I ſuppoſe, you will incloſe, a ſingle
" Man cannot be capable of putting it to the beſt
" Uſe; for, if your Soil is ſuch a dry one, as you
" give an Account of, I can put you in the Way,
" not only to plant it with a proper Sort of Wood
" for Hedges, but to ſow ſuch proper Seeds, as will
" enable you to carry on a Dairy, or to ſuckle
" Calves, or Houſe-lambs, to breed Cattle, and ma-
" ny other Matters, that formerly were thought im-
" poſſible to be done, in ſuch a huſky, dry Soil, by
" our Fore-fathers. And here it is, that the Wo-
" man becomes as neceſſary, almoſt, as the Man,
" particularly in the Management of the Dairy, as
" well as Looking after the Suckling of Calves,
" Bees, and Houſe-lambs, both in Summer and
" Winter; ſo that, with a good Contrivance at firſt
" Setting out, there may be a continual Profit car-
" ried on all the Year long, even in this dry, poor
" Soil, better, perhaps, than in a richer Vale Ground,
" which, ſometimes, by Inundations of Waters, are
" the Cauſe of great Loſſes.

" *Fourthly*, Was I to ſurvey your Land, and know
" the true Nature of it, by being on the Spot, I
" could give you my Opinion, with the greater Aſ-
" ſurance, how it may be improved; for, as it is of
" the greateſt Importance to avoid committing Miſ-
" takes at firſt, many Gentlemen, I preſume, would
" be much their own Friends, if they would defray
" my Charges, and give me a tolerable Encourage-
" ment to ride to the Place, and there draw up an
" Eſtimate of thoſe Improvements that may be pro-
" duced from the Soil that is moſt agreeable to
" them.

" I have been in one Part of *Lincolnſhire*, but not
" your Way, and have this to ſay, that, I believe,
" the Man, I think to ſend you, will be cheaper at

" twelve Pounds a Year, than one of your Country-
" bred Plough-men will be at three Pounds a Year;
" for this Man can ſow and hough Turneps, ſow
" Corn in any Shape, hold the Drill, as well as o-
" ther Ploughs, and Horſe-breaks, ſuckle Houſe-
" lambs and Calves, plow Ground in ſeveral Poſtures,
" manage Pea and Bean-crops according to the
" *Middleſex* Mode, and do many other Works, that
" your Country-men are Strangers to. The Wo-
" man, his Wife, is alſo ſo good a Houſe-wife,
" that ſhe can perform ſeveral Cures on Horſes,
" Cows, and Sheep: And no Wonder they are both
" ſo well qualified, ſince he was ſeveral Years
" head Servant to a Gentleman, who held near four
" Hundred Acres of Land in his Hand, both of
" Meadow and Arable Land, that lay, ſome in
" incloſed Ground, others in common Fields; and
" he remained in his Service till a more beneficial
" Buſineſs befel the Gentleman, which obliged
" him to live in *London*, and quit the Coun-
" try; and then the Man and Maid married, by
" the Approbation of their Maſter and Miſtreſs,
" and are the Couple I would here recommend to
" you; whom, I am perſuaded, you will like, when
" you ſee them, though they have two very ſmall
" Children."

I am, Sir,

Yours, &c.

The Copy of a ſecond Letter ſent the Author, by the ſame Gentleman, to help him to a Plough-man.

Mr. *William Ellis*,

I Thank you for yours, of the third Inſtant, and obſerve and agree with you, as to the Difficulty, at this Time of the Year, of meeting with a Servant, for the Reaſons you mention; but as you ſeem to recommend the married Man, tho' twenty Miles from you, that you think may probably ſuit my Purpoſe, and ſeems deſirous to go abroad; ſo, if you will do me the Favour to ſend me that Man, the ſooner the better. I would have him firſt come hither to me, and from hence to *B*——, to ſhew him the Country; and it is very probable, we may agree that his Wife and two Children may come after; as I have a Tenant or two in the Town, ſo we may talk more fully of Matters, and upon our Agreement, and his Suiting me, there is a Gentleman or two, in *B*——, will be inclined to have ſome more of his Country-men for Servants; therefore, at preſent, I need not trouble you with ſaying more, than that you will ſend him, and I will pay his Travelling-Expences, and for his Time, in Caſe he ſhould not like my Terms, or any other Reaſons, that may hinder Agreeing by the Year. *I am*,

Sir,

Your obliged

humble Servant.

I think, by the Map, you are not far from St. *Albans*. If I go to Town, this Summer, I will do myſelf the Pleaſure of calling on you.

CHAP. XVIII.

Of Tills.

HOW *a Farmer had three of his Horſes killed by eating of* Tills.— In their ſandy Lands, about *Chipping-Norton*, in *Oxfordſhire*, that lie in open Fields, in the ridge Faſhion, they ſow Tills, or Dills, and harrow them in; ſo near *Chidlington*, between *Woodſtock* and *Oxford*, in their bluiſh and reddiſh Sands, they ſow Tills and Thetches, by harrowing them in, as they are a ſmall Grain, but they plow their Peaſe in; and as for Beans, they ſow none in this Soil, becauſe they will not grow here to Profit. Tills are rather a leſſer Corn than a Thetch, which they never thraſh out, to give them to Horſes, but put them into the Rack in their Straw, or Haulm, as they came out of the Field; and this they obſerve to do with a great Deal of Care, in a little Time after Watering; for if Tills are thus given in any Quantity to Horſes, and they be preſently after watered, they will kill a Horſe, becauſe they will ſwell in his Belly, ſo that he cannot digeſt them. It was ſome Years ago, that a Servant of one Mr. *Arnot*, who then lived at *Chipping-Norton*, killed three of his Maſter's Waggon-Horſes, in leſs than half an Hour's Time, thus: Being at *Oxford* Market with his Team, the Maſter ordered his Servant to give the Horſes a Bundle of Tills, that he brought with him, which the Man did, and, as ſoon as the Horſes had eat them, he was ſo filly as to water them; on which, the Tills ſwelled in the Belly of the Horſes, to that Degree, as killed three of them, in about a Quarter of an Hour's Time. Now this muſt proceed from very great Careleſneſs; becauſe, at Home, they never give their Col-

lar-

lar-horſes any Tills, till after they have been watered, and then they give but a very little at a Time to them in a Rack, for Tills are not all the Corn they eat: They give the Horſes Oats, Chaff, and Hay, beſides. Till is only to help out the Farmer's other Provender; and, in the giving Cattle their Manger-meat, as well as their Rack-meat, there requires a great Deal of Diſcretion to be uſed, for a Horſe-keeper, by imprudently Feeding his Cattle, may take them off their Stomach, prevent their Thriving, and holding their Work as they ought to do. It is a Rule with us, to bait our Plough-horſes cloſely for two Hours in a Morning, and three in an Afternoon. In a Morning, we begin at four o'Clock all the Summer-time, and bait them till ſix, before they go to plow; and, in that Time, my Horſe-keeper gives the Proportion of a double Handful of Oats, among Chaff, to three Horſes, I believe more than a dozen Times, and ſo after they come from Plough; for, by thus giving them a little at a Time, it prevents Glutting them, keeps on their Appetite, and makes them the more eager of Feeding on their freſh Handfuls; whereas, were the Horſes to have Half, or all their Meat given them at one Time, it is thought, it would not do them half the Service; wherefore a Horſe-keeper ought to be a ſober, diſcreet, ſkilful Man, or Boy, for, on his good or bad Management, depends the ill or well doing of the Horſes, as I ſhall further prove by the following Example.

How a Horſe was killed, by indiſcreetly feeding him with Horſe-beans.— This Misfortune happened to a great Farmer, whoſe Name was *Collins*, living in the Pariſh of *Pitſtone*, near *Ivinghoe*, in the County of *Bucks*, who, having Occaſion to buy in ſome Plough-horſes, bought two at once, out of a Gentleman's Stable, who kept a pretty many to plow the Land he then held in his own Hands, and for other

other Uſes. Now theſe Horſes, while in the Gentleman's Hands, were only fed on Oats and Hay, as living in the *Chilturn*, dry, hilly Country, where very few Horſe-beans are ſown: But, after they were bought, he had them to *Pitſtone*, which lies on the Edge of the Vale of *Aylesbury*, where, as uſual, they give their Plough and Cart-Horſes, for the moſt Part, Beans, and but very few Oats; and, as the two Horſes, on giving them whole Beans and Chaff, fell to eating them ſomewhat greedily, by their being a Novelty to their Palates, as ſoon as they had done, the Horſe-keeper directly gave them their Belliful of Water, as he did his other Horſes; but, theſe two not being uſed to ſuch Feed, the Beans had a fatal Effect on one, by ſwelling in his Belly, to ſuch a Degree, as killed him, and had like to have done the ſame by the other.

CHAP. XIX.

A further Account, than what I have already publiſhed, of the Bites of Jockies *and* Horſe-dealers.

Of Buying and Selling Horſes.— To learn to avoid Loſſes, by other Men's Miſtakes and Harms, is certainly a moſt ancient, a moſt plain, and moſt true Way of doing it, becauſe it is the cheapeſt Way to get Wit, of all others; and, ſo much the more, ought this Maxim to be obſerved, as the Subject is of the greater Conſequence. Now, as the Horſe is a noble, uſeful, and neceſſary Creature, and what moſt Farmers are obliged to buy in: If they have not Judgment enough to ſee, through their own Eyes, into the Faults of this Creature, they

they ought to borrow, or buy, the Help of others: For it is an uſual Saying—A Man, that deals much in Horſes, muſt conſequently loſe a hundred Pounds, before he knows well how to chuſe the Sound, and refuſe the Unſound.— Therefore the Proverb juſtly remarks, *He, that buys, ought to have a hundred Eyes:* Particularly, when he purchaſes Horſes at Fairs, where Farmers, in general, buy them of intire Strangers, whoſe conſtant Practice is to live, by buying and ſelling of theſe Creatures, and who, in Courſe, are largely furniſhed with Wit enough, to out-wit an ignorant Buyer, as moſt Farmers are, who only deal in Horſe-fleſh for Neceſſity Sake; and on this Account it is, that ſome of this Number are ſo wary, when they are Maſters of good Horſes, that they will not part with them, for trying to get a Penny, by ſelling or ſwopping a Certainty for an Uncertainty: That is, a good one, for a bad one.

How a young Plough-man, attempting to deal in Horſe-fleſh, was bit the very firſt Time.— A young Plough-man, having ſaved about twenty Guineas in Service, was ſo fluſhed with the Deſire of getting Money, by buying and ſelling Horſes, that he was reſolved to venture on the Attempt; and the rather, becauſe his Maſter ſaid, he would keep the Horſe for his Work. Accordingly, he went to St. *Paul*'s Fair, kept at *Leighton* in *Bedfordſhire*, on the twenty-fifth Day of this Month, 1742, where it was not long before an Opportunity preſented for him, to buy a clever black Gelding to look at, about four Years old, which he bought for ſix Pounds, and thought himſelf cock-ſure of a great Bargain: But it proved otherwiſe: For, as ſoon as Perſons of better Judgment viewed him, they eaſily perceived him, to be a dark-ſighted one, and very likely to become a blind Horſe; which ſo diſcouraged our Novice, that he tried two Fairs before he

he could get him off, and that was done by lighting on an ignorant Farmer, one like himſelf, who never ſo much as ſcrupled the Horſe's Eye-ſight, as not having Judgment enough to ſee a plain Blemiſh, though all others, that before made an Offer of buying him, did; and thus he happened to come off pretty well, for he made juſt as much of the Horſe, as it coſt him. But I adviſed him to meddle no more with this Sort of Goods, but in that he underſtood better, which was Sheep: Accordingly, he took my Advice, and bought a Score of Wethers, that his Maſter kept for him, for the Sake of folding them.

How a Farmer had like to have been bit, in buying a Horſe at Hempſtead *Fair.*— At *Hempſtead* Fair, that was kept on the ſeventeenth Day of *June*, 1742, a Neighbouring Farmer to me bought a Horſe for about ten Pounds, for the Plough and Cart, and, when he had paid for him, the Jockey whiſpered him, and ſaid he is a very ſound Horſe, only he will fall a Kicking an Hour together, when he is firſt put into the Harneſs: And further ſaid, that the laſt Man, he ſold him to, gave him a Guinea Repentance. Now, this was ſpoke with an Intention, to get a Guinea of this Farmer, but the Skit would not take here, for he boldly ventured to ſtand to his Bargain, as believing what the Dealer aſſerted, to be only a Feint; and, of a young Horſe, he proved to be as gentle a one, as any in *England.*

How a Jockey uſed to get Repentance-Money, by ſowing up a gathered Skin to hide a Bunch under a Horſe's Belly.— This was alſo done at *Hempſtead* Fair, a few Years ſince, where a Jockey, or Dealer, had a Horſe to ſell, that had a Bunch under his Belly, which to prevent being perceived, he wrapped ſome Skin over it, and ſewed it up; which hid the Deformity to a Nicety, ſo that he ſoon ſold the Horſe,

and

and, when he had taken the Money, he immediately cut the Thread in two, and then the Bunch appeared. But, as the Excreſcence only contained Wind in it, it was of no Damage. However Mr. *Dealer*, to bring his Skit to bear, told the Buyer, the Horſe's Guts would come out at that Place, before he got Home with him; which raiſed ſuch an Apprehenſion in him, that he directly gave the Seller three Guineas Repentance, for him to take the Horſe again. On this, the Dealer renewed his former Stratagem, by Sowing the wrapped up Skin about the Bunch, and then directly had him into the Fair again, to take in another Chap; which Mr. *Craftsman* ſoon effected, by Selling the ſame Horſe to one Mr. *Tyler*, a great Farmer, living near *Great Gaddeſden* Church, who knew nothing of the firſt Sale. But, in like Manner, this Dealer, with his old concerted Lye, uſed his utmoſt Endeavour, to throw this Buyer and bring him under the uſual repenting Forfeiture: But, as it happened, he catched a *Tartar* this Time; for Mr. *Tyler* ſaid, if he was cheated, the Horſe ſhould cheat no other, for he was reſolved to keep him at all Hazards; and keep him he did, till he made the Horſe worth as much more, as was at firſt given for him, as his Sale proved. Now, whether this Bunch was raiſed by Art, or whether it proceeded from Nature, or from an Accident, I cannot determine: But it is very likely to be done by the former; for as the Hiſtory of that arch Villain *Jonathan Wild* gives an Account, how he and his Confederate Thieves made Uſe of new invented Artifices, when old ones were worn thread-bare, or, to be plainer, too much known, in order the more eaſily to impoſe on, and deceive the careleſs or ignorant Perſon: So it is very probable, that ſuchtricking Jockies, or Dealers, as I am writing on, do the ſame by Horſes, for their more ſurer biting the ſilly Farmer, or other Novice,

in the Art of Horſe-dealing, as I ſhall, in the next Example, ſomewhat make appear.

How a Horſe-dealer made a ſore Place in a Horſe's Neck, on Purpoſe to get Repentance-money of the Buyer.— Another Jockey, or Dealer, invented this Device, to impoſe on the Careleſneſs or Ignorance of a Buyer. A little before he had his Horſe to a Fair, his Way was, to make a ſore raw Place in the top Part of his Neck, under the Main, and near his Head, where ſuch a Deformity was the leaſt to be ſuſpected. When this was done, and the Horſe at the Fair, he clapped an Ivy Leaf on the Wound, which he cauſed to ſtick on, to anſwer his intended Purpoſe. Now this Horſe happened to be ſoon ſold at *Leighton* Fair, in *Bedfordſhire*; for theſe villainous Tricks are for the moſt Part acted on clever Horſes, that are the moſt likely to bring on a quick Sale, becauſe, the ſooner a Horſe is ſold, the leſs Opportunity the Buyer has to make his Inſpection. And, therefore, theſe ſubtle Dealers not only try theſe wicked Practices on fine-ſhaped young Horſes, but aſk a moderate Price for them, beſides, in Order to take in the Unwary, as this Dealer did; who, as ſoon as he had ſold the Horſe, and got his Money for him, ſhewed the Buyer the diſtempered Place, as he endeavoured to make him believe; and he ſo pathetically plied his Lyes, as to cauſe the credulous Purchaſer to think the Pole-evil, or other Malady, was actually begun in the Part, and thus extorted from him three Guineas Repentance-money, though there was no Manner of Cauſe for it, in Reality.

The Bite of a falſe Tail.— On the ſeventeenth Day of *June*, 1742, at *Hempſtead* Fair, a Dealer's Horſe had a falſe Tail platted on a natural ſhort one, which here, by an accidental Rub, dropped off, as the Horſe was leading through the Fair; for moſt of theſe Sort of Horſe-dealers are ſuch Artiſts, as to plat a cut off Piece of Tail from another Horſe, on

on a natural ſhort one, if there is Hair enough on it, to faſten the artificial one to.

How two Perſons ſwopped their Horſes at Dunſtable *Fair, and cheated each other.*— Two Perſons ſwopped their Horſes at *Dunſtable* Fair, and, when the Horſes were exchanged, ſays one of them to the other:— Take Care to call by the Way, for your Horſe will not be able to travel Home; ſays the other, Take Care to wipe your Horſe's Noſe, for he is glandered.

CHAP. XX.

The Improvement of Wheel-carriages.

How Waggons, &c. may be made and managed to a much greater Advantage, than heretofore has been done.

A *Diſſertation on Four-wheel Carriages.*— I have, ſays this Author, been diverting myſelf with drawing up Reaſons, to ſhew, that Coaches, Waggons, and other four-wheel Carriages, whoſe fore Wheels are leſs than the hinder ones, go eaſier, when the Weight, contrary to common Practice, is laid on the hinder Wheels.

Firſt, Becauſe the fore Wheels cut the Road, and then the hinder Wheels follow in a Track ready cut and ſmoothed for them. This Reaſon is vaſtly ſtrong in froſty Weather, or ſoft Ground: But it has great Strength, even in Summer-time, and dry Roads; for then the Clods fall into the Ruts, which will be all broken by the Wheels that firſt go over them. But it is plainly eaſier for the hinder Wheels to carry the Load, where the Ground and Clods

are cut and broke for them, than for the fore Wheels to do both Offices. Country-men reckon there is one Horſe's Draught Difference, between going firſt and ſecond in a Road; and, therefore, they always ſtrive to let ſome Cart go before, to draw the Road.

Secondly, The fore Wheels will cut deeper into the Road, than the hinder Wheels will do, with the ſame Weight upon them; becauſe, the broader or longer any Thing is, the leſs Way will a Weight preſs it into the Ground; but the hinder Wheels, being larger, muſt make a longer Hole than a ſhort one: Therefore the ſame Weight will not croud the hind Wheels in ſo deep, as it will the ſmall ones. And many Times it will happen, that the fore Wheels, if the Weight be upon them, will cut in, when the hinder Wheels, if they carried the ſame Load, would not cut at all, but run upon the Nail. But, if the Weight be ſo great as to make the hind Wheels cut in, then, the firſt Reaſon comes in to eaſe them, *viz.* they will run in a Track ready cut for them. Beſides, How very hard muſt the fore Wheels come loaded, when the Ground is ſo ſoft, that the Axle-tree, or Nave, ſlide upon the Ground, and ſometimes drive the Ground before them? Whereas, if the Weight was on the hind Wheels, the fore ones would not ſink in ſo deep, and the hinder ones, being higher, would trip after them, clear of the Dirt.

Thirdly, Every one knows, that a Power, applied at the End of a long Lever, will raiſe a Weight eaſier, than at the End of a ſhort one. To apply this to the Caſe of a Coach or Waggon going up Hill, or getting out of a Hole, or drawing over an Obſtacle in the Road, which are all one and the ſame Thing: Now the Length of the Spoke, or Diſtance from the Ground to the Axle-tree, may be called a Lever, which being longer in the hind Wheels than in the fore ones, the ſame Power, applied at the

Axle-

Axle-tree of the hinder Wheel, will have a greater Force than at the Axle-tree of the ſmall Wheel.

Fourthly, It is certain, and well known, that a Power, applied to a Lever at right Angles, has a greater *Momentum*, or Force, than if applied obliquely on either Side. To apply this, all Coaches and Waggons have their fore Wheels ſo low, that the Harneſs, or Shafts, are lower, where they are faſtened to the Coach or Waggon, than the Horſes Breaſts; conſequently the Horſes draw, not horizontally, or at right Angles, but upwards; that is, Part of the Weight, or Load, hangs continually upon their Breaſts, or Necks. The Lever of a Wheel, which is the Spoke or Diſtance from the Ground to the Axle-tree, ſtands perpendicular to the Ground; the Power, that would act with the greateſt Force, ſhould be applied horizontally, or level with the Ground; but, the higher the Wheel is, the nearer to a horizontal Direction would the Power act: Therefore, a Power, applied to the great Wheels, brings them on eaſier than the ſmall ones.

Fifthly, When the fore Wheels, with the Weight upon them, are in a Hole or Slough, the foregoing Reaſon has great Force, becauſe the Horſes then draw more upwards, or further from right Angles, than when the Coach or Waggon went upon level Ground; and conſequently, a greater Part of the Load lies upon their Breaſts and Necks. What I would add, to lay the Load upon the hinder Wheels, is this: When the fore Wheels, with the Weight upon them, are in a Hole or Slough, the Wheel-horſes in a Coach or in a Waggon, the Shaft-horſe to be ſure, if not the next Horſe to it, are in the Slough too, which are the beſt Horſes in the Team; that is, they are, where, by Reaſon of the Badneſs of the Ground, they can do the leaſt Good: But, if the Weight be upon the hinder Wheels, the fore Wheels will eaſily run through the Slough, becauſe they have no

Weight

Weight upon them, and, by that Time the hinder Wheels are got into the Slough, the Horſes will be all got out, on firm Ground, where they can exert their Strength the better, will draw more horizontally, have a longer Lever to pull at, and a Paſſage made through the Dirt, for the hinder Wheels to run in.

Sixthly, If all the foregoing Reaſons were annihilated, or had no Force in them, which yet, to me, ſeem to carry Demonſtration in them, there is ſtill another Reaſon, which would alone prove, that a Coach or Waggon follows the Horſes, when the Load is upon the hind Wheels, with half the Labour that it would do upon the fore ones; and that is this, while a Wheel is turning round once, all the Parts of the Fur or Box in the Nave rub againſt the Axle-tree; the Horſes Work is, to overcome this Rub or Friction. To make it eaſy, it is daubed with Greaſe. The Fur or Box in the hinder Wheels, is no bigger than the Fur or Box in the fore Wheels. Now, if the hinder Wheels be as high again as the fore ones (as they commonly are in Coaches, tho' in Waggons not quite ſo much) the Rubbing round the Fur or Box in the hind Wheels will carry the Load twice as far as the fore Wheels: Or, thus, if the Load be upon the fore Wheels, the Rub or Friction muſt be twice round the Fur or Box, to carry the Load as far as once rubbing round would do upon the hinder Wheels; that is, the Load would go as far upon the hind Wheels, with half the Labour, as it will upon the fore Wheels; for the hind Wheels, if as high again, go as far with once turning round, as the fore ones do at twice turning round. This Proportion is nicely true in Coaches, and in Waggons, three to two; or the Horſes in a Waggon would carry a Load upon the hinder Wheels, three Miles, with the ſame Labour as they would do two Miles upon the fore one. But, when the fore-

foregoing Reaſons are added to this, the Labour of the Horſes is leſſer ſtill, a great deal.

Seventhly, There are, in all Roads, but eſpecially in Ground that is full of Ant-hills, or in froſty Weather, or in croſſing Ruts, or in Summer-time, where the Ground is rough and hard, a great many Holes, which the fore Wheels, being ſmall, will go to the Bottom of; but the hind Wheels, being of a larger Compaſs, will only touch the Sides, without going down to the Bottom; and conſequently, not ſinking down ſo deep as the fore Wheels, are eaſily drawn over.

Eighthly, It has been commonly believed, that the nearer the hind Wheels are to the fore ones, in a Waggon, or the ſhorter the Carriage of a Coach is, the eaſier it is for the Horſes. But what follows will prove, not only that the Load ought to be upon the hind Wheels, but that the further the hind Wheels are from the fore ones, and the longer the Carriage is, the better it is, both for the Horſes and the Riders; for the Horſes, that are in the Shafts of a Waggon, are moſt barbarouſly thumped this Way, and that Way, by the Shafts, when the Load is upon the fore Wheels, juſt at his Tail; but when the Load is upon the hinder Wheels, and they, as far off as poſſible, the Motion of the fore Wheels will be much eaſier againſt his Sides, becauſe there is no Weight upon them, and the Draught of all the Horſes will keep the fore Part of the Waggon ſteady, and the Motion of the hind Wheels will be almoſt loſt before it reaches the Shaft-horſe.

Ninthly, The longer the Diſtance is between the fore and hind Wheels, or the longer the Carriage of a Coach is, the eaſier will be the Turning out of the Road, or into a Yard, or another Street; becauſe the Length of the Waggon or Carriage may be called a Lever, and the longer that is from the hind

hind Wheels, which carry the Load, the leſs Power is required.

Beſides, for it would be endleſs to count the Reaſons that may be given in ſo plain a Caſe, it is the ſafeſt Way to prevent Overthrowing; for, when one of the fore Wheels, with a Load upon it, goes into a Hole, it falls down with a great Force, the Coach, or Waggon, ſtands, as it were upon its Head, and eaſily brings over the hind Part, becauſe it is light and near; but if the Load be removed to the hind Wheels, and they at a good Diſtance, then the fore Wheels, dropping into a Hole, could not ſo eaſily draw over the hind Part, becauſe it is now heavy, and further off. And, if one of the hind Wheels, with the Load upon it, falls into a Hole, it cannot draw over the fore Part, becauſe the Draught of the Horſes will pull it down, or, rather, keep it from riſing up.

And, again, a Coach, or Waggon, is in little Danger of overturning, unleſs a Hole be ſo long as to take in both the Wheels in the ſame Side, at the ſame Time; for, if the Hole be not ſo long, then when one Wheel is in the Hole, there are three ſtand level, and by that Time the hind Wheel come to the Hole, the fore Wheel is out, and then there are three ſtand level again: So that, the further the Wheels are from one another, the better Chance you have, not to have the Wheels on one Side in a Hole at the ſame Time; that is, of not being overthrown.

I will give you one Reaſon more; and that is, a Coach will go a vaſt deal eaſier to the Perſons that ride in it, for having the Carriage long; for the Shocks will not come ſo quick, nor be ſo great, nor ſo many; for, when the hind Wheels are at a good Diſtance, and the Coach hangs as near them as poſſible, the Motion of the fore Wheels will be ſcarcely felt. When one of them goes into a Hole

a Hole, there will, by Reaſon of the Diſtance, be perceived, in the Coach, only a gentle Sinking on that Side, or, at moſt, an eaſy Swing, which will give the Riders no Trouble, but rather Pleaſure.

From theſe Reaſons, it follows, contrary to the common Practice and Opinion, that, the longer the Carriage of a Coach is, the better it is, both for the Horſes and the Riders.

That the Coach ought to hang as backward, and as near the hind Wheels, as poſſible.

That no heavy Carriage ſhould be put into the Boot, under the Coachman, but all Boxes, Portmanteaus, and Servants ſhould be behind; not between the Back of the Coach and hind Standards, but upon a Board, beyond the hind Axle-tree; becauſe what Load is placed there, will help to poiſe up, or leſſen the Load upon the fore Wheels.

That the fore Wheels ought to be as high as the Convenience of Turning will allow, and what is wanting, in the Heighth of the Wheels, ought to be remedied, as far as it can, by raiſing the Hamel-tree ſo high, that the Horſes may draw as near to a horizontal Line as poſſible.

In Waggons, the fore and hind Wheels ſhould be placed as far as poſſible from one another.

That a long Ladder ſhould be behind, and never any before, that the greateſt Part of the Load may be laid upon it, beyond the hinder Axle-tree; and, if any Part of the Waggon be empty, let it be the fore Part.

The Shafts, or Sharps ſhould be raiſed, where they are faſtened to the Waggon, rather higher than the Horſes Breaſts or Shoulders, that ſo the Horſes may draw in a horizontal Line, even when the Wheels are in Ruts, lower than the Horſes Feet.

Country-men object, that, if the Load be upon the hind Wheels, the Waggon will come harder, becauſe the Load will be the further off from the Horſes; but I muſt tell them they are miſtaken. If there be any Force in the Reaſons I have given, inſtead of coming harder, it will come eaſier, and then Reaſon is againſt them; and Experience confirms my Reaſons, as may be ſeen by drawing a ſmall Waggon, with a Line and Weight over a Pulley. They urge, that a Weight, at the End of a Cart-rope, drawn over Wheat-Ricks, would come hard. Yes, I ſuppoſe it would, but what is this to the Purpoſe? In this Caſe, no Wheels are uſed, and therefore the Caſes are different; beſides, I have not ſaid one Word, that the Horſes ſhould go a great Way, the Length of a Cart-rope, before the Coach or Waggon; and, therefore, this is nothing to the Purpoſe of what I have ſaid: However, I will ſpeak of this by and by,

But the grand Objection is their own Experience: When the fore Wheels of a Waggon are faſt in a Hole, they take ſome of their fore Horſes off, and hang them upon the Shafts, and then they can draw out; from whence they think it plain, that, the nearer the Horſes are to the Load, the more Force they have. But they forget what was ſaid in my fourth Reaſon: That, as Coaches and Waggons are made now, the Horſes draw upwards; and that Part of the Load hangs perpetually upon the Horſes Necks, or Breaſts, even when the Waggon goes upon level Ground: And that, when the fore Wheels are in a Hole, the Horſes draw more and more upwards, or leſs and leſs forwards; and, therefore, the Horſes do not ſo properly draw the Wheels out of the Holes, as lift them out; they lift the Waggon up by their Necks. The Country-man is

is apt to praiſe his Horſes, how bravely they ſtoop-ed at their Work, and took the Waggon out of the Hole. Yes, they muſt needs ſtoop with ſuch a Load upon their Necks, the Weight oftentimes pulls them down to the Ground; the Chafing of their Necks tells, what a Load they bear. But the Me-thod here propoſed, the Laying the Load upon the hind Wheels, would prevent their Lifting the Load at all, and make the Wheels come eaſier through the Hole too. I think this is very plain; but ſtill the Country-man will hardly believe it: He has ſo long and ſo often heard, that, the nearer the Hor-ſes are to the Load, the more Force they draw with, that it will be very hard to get it out of his Head. What will he ſay to me, if I ſhould tell him, that, where Horſes draw upwards, as they do in all Coaches and Waggons, the further the Horſes are from the Load, the more Force they draw with? If this ſtartles him, and he do not underſtand it, I would fain have him obſerve his Child playing with a lit-le Cart or rather Waggon, becauſe it has four Wheels; when a little Boy has loaded it with Dirt, r Stones, he does not, as the Country-man thinks e ſhould, take hold of the String cloſe to the Wag-on, becauſe he would find the Weight of the Wag-on lie heavy upon his Arms, as I ſaid before it oes upon the Horſes Necks; nay, he would even ft the fore Wheels up from the Ground; but he ets to the End of this Line, as far off the Wag-on as he can, becauſe there he finds it comes ea-eſt. If, indeed, at any Time the fore Wheels drop to a Hole, where he cannot drag them out, then comes up to his Waggon, and takes ſhort Hold, at he may lift his Wheels out: As ſoon as that is one, he runs to the End of his String again, with-t taking any Care for his hind Wheels; theſe,

he knows, will come on, though the greateſt Part of the Load lies upon them. If the Country-man would vouchſafe, to play a little with his Child's Cart, he would find, and feel, all I have ſaid to be true. Strange! That he himſelf ſhould be a better Carter, when he was a Child, than he is now. The Caſe is the ſame, if the Draught be downwards, the further the Horſe or Man is from the Thing drawn, the greater is the Force: As in pulling a Rope faſtened to the Top of a Timber-tree, when Men are felling it. If the Country-man's Notion was true, that, the nearer the Drawer ſtands to the Tree, the more Force he draws with, then they, that pull at the Rope, ought to ſtand cloſe to the Tree, at the Bottom of it; but they would have little or no Force there; and, therefore, we always find, they get as far off, as they can, to the very End of the Rope, not ſo much to avoid the Tree's Falling upon them, but becauſe, the further off they get, the more Force they pull with: The Reaſon is the ſame as before.

I would willingly ſet the Country-man right, in one Notion more, which ſhews his great Ignorance, and is a monſtrous Piece of Barbarity: He thinks that the Shaft-horſe, in a Waggon, bears no more Weight on his Back, than the Weight of the Shafts only; and that every Horſe, that goes before him, draws horizontally, but the Horſe, in the Shafts, bears upon his Back the Force of two Horſes pulling them downwards. The ſame may be ſaid of every other Horſe; but the united Force of all the Horſes, every Horſe pulling them lower and lower, muſt make a monſtrous Weight upon the poor Shaft-horſe's Back, enough to break it, or preſs him to the Ground: And what ſhews the Ignorance of the Country-man is, that all the Force, with which all the Horſes draw the Shafts downwards

loſt from the Waggon; what is exerted, in pulling downwards, is loſt from pulling forwards. But, if the Waggon-Maker would be ſo wiſe, as to faſten the Shafts to the Waggon, as high as the Horſes Shoulders, the poor Shaft-horſe would be eaſed of his Load; and every Horſe would exert all his Strength, in drawing the Waggon forwards; but at preſent this Load upon his Back, and the Thumps and Bangs againſt his Sides, occaſioned by the Load's lying on the fore Wheels, is intolerable. Though I have here ſpoken to Waggoners only, I would not have Coach-men think themſelves unconcerned in this Reaſoning. The Lowneſs of that croſs Piece of Wood, to which the Wheel-horſes in a Coach are faſtened, which I call a *Hamel-tree*, and the Loading the fore Part of the Coach, with Boxes, occaſion the Horſes a vaſt Deal of needleſs Labour, and Pain too, from the Preſſing of the Pad hard againſt, and Chafing their Backs: It cannot be expected, that Waggoners and Coach-men ſhould think much of theſe Things. It therefore concerns the Owners of Waggons and Gentlemen to take Care, ſo to order Matters, that their Horſes may do their Work with the greater Eaſe.

CHAP. XXII.

Of Natural *and* Artificial Graſſes.

HOW *to improve, in the beſt Manner, the natural Tyne, or wild Thetch-graſs, the Lady-finger-graſs, and the artificial* Lucern-*graſs.*— The ſeveral Letters that I have lately received from Gentlemen, concerning the excellent Lady-finger Graſs,

Graſs, have induced me here to write upon it, and to take the preſent Opportunity of doing the ſame by the Tyne, or wild Thetch-graſs, and *Lucern.*

To begin with the firſt, I have to acquaint, both Gentlemen and Farmers, that this Tyne, or wild Thetch-graſs, is a true natural Meadow Sort, that deſerves the Care and Attendance of all Perſons, whoſe Buſineſs and Intereſt it is, and who have the Conveniency of doing it, to get the Seed of it, in order to propagate it, and get whole Fields of this intire, ſerviceable Graſs, that will juſtly anſwer the Character, of ſupplying the Place, in a great Degree, of Oats and Hay; becauſe this Tyne-graſs is the higheſt and moſt branching Graſs of all others, growing in fine, large Stalks, and in Kids, or Pods, in Proportion, that contain a great Deal of Seed, about the Bigneſs of which will make a Horſe foam at his Mouth, when he eats this Hay hungry and greedily: For there is a peculiar Quality belonging to this Graſs, or Hay, beyond all others; and that is, the Seed of it is of ſo warm a Nature, Thetch-like (though not bitteriſh like that) and ſo well agrees with Horſes, that the Hay, made of this Graſs, will keep Cattle from catching Cold, on Eating it, when they come off a Journey, or Work; and yet is of ſo ſweet a Nature, that they will eat it with Pleaſure.

Now this excellent Graſs, ſo well furniſhed with theſe good Qualities, will grow into the greateſt Bulk of all Meadow Graſſes, and is ſo prone to run into a quick Growth, that this Graſs is ſometimes Part of the Farmer's Curſe, when it comes up as a Weed among his Corn; which it often does, in a wet, hot Summer, when the Ground is

in

a ſour, rough, bad Tilth, at the Sowing of the Grain, and the Crop proves a thin one; for, then, one Sort of Weed, or other, will be ſure to peſter his Corn-Crop; which, indeed, is the Farmer's chiefeſt Care to prevent, and to get his Corn in clean from the Field, free of all Soil, or Sullidge of Weeds and Graſs-ſeeds, or elſe he may depend of being forced to take a lower Price than ordinary for his Grain, which proves the prolific Nature of this Tyne-graſs; and it is theſe profitable Virtues, that tempted a Gentleman, who occupies his own large Vale Farm, to ſave a Parcel of this Tyne-graſs, this Summer, 1743, that grew in his Meadow, for letting it ſtand till the Seed of it was ripe, in order to propagate it in another Place, and ſet a Piece of Ground intirely planted with it (for he had no Lady-finger Graſs growing here) and then he may juſtly expect, when the Land is thoroughly taken with it, to mow three Loads of Hay from off each Acre, becauſe this Graſs is the moſt bulky Sort of all others.

The ſecond is the Lady-finger Graſs, which I have, heretofore, in my former Monthly Books, given ſo large an Account of, that I ſhall ſay the leſs here. It is certainly true, that the Lady-finger Graſs is the None-ſuch Graſs of all our Country; and, I believe, I may aſſuredly ſay, of all *England*, becauſe it is a branching, bulky, and moſt ſweet Graſs; growing like the Tyne-graſs, into moſt as high Stalks as that, but into different-coloured Bloſſoms, for the Flowers or Bloſſoms of the Lady-finger Graſs are like thoſe of the *Auricula* Sort, moſtly of a yellowiſh Colour, mixed with red. And I can affirm it for Truth, that the Tyne-graſs and the Lady-finger Graſs are the two beſt Sorts of natural Meadow Graſſes that are,

are, for Feeding and Fattening of Conies, Deer, an
Race-horſes, or, indeed, for Feeding and Fatten
ing any other Sort of Cattle that will eat them
whether given to them in Graſs or Hay; inſo
much that I am perſuaded (and I would willing
ly write impartially on theſe, or any other Vege
tables, or on any other Matter relating to them
that Gentlemen would have theſe Seeds to ſow
though they coſt an extraordinary Price, if the
knew the Value of them; for there is no Occa
ſion, in my humble Opinion, for ſearching aft
a foreign, ſpurry Seed, which Authors have en
deavoured to give the greateſt Character of, whe
we have, at Home, theſe two *Engliſh* natural Sort
which, very probably, exceeds that, and all other
And, notwithſtanding all the Buſtle that is mad
about this unknown Graſs, to the *Engliſh*, I canno
find the true Sort was ever ſold at any of th
London Seed ſhops, as the Seeds-men own; bu
ſomething like it has been. But here is the Mi
fortune, theſe Graſſes, that grow in my Up-lan
Meadows, muſt ſtand longer for Seed, than th
common Time allowed for cutting my Graſs fo
Hay; and, if I do ſave my Graſs-crop for Seed
there will be ſeveral Sorts of Graſs-ſeed among
it, if mown altogether, which will not anſwer th
Purpoſe, becauſe we want clean, intire Seeds
the Tyne and Lady-finger Graſs. Therefore,
any Gentleman will come himſelf, or ſend h
Bailiff, about the 12th of *June*, to my Houſe,
ſhall ſee theſe Graſſes in their Growth; and,
he will pay me for the Damage I ſhall ſuſtain
keeping the Graſs-crop ſtanding till the Seed
ripe, he ſhall have the Liberty of having the See
picked and gathered by itſelf, free and cle
of all other Graſs-ſeeds.

In the next Place, I ſhall endeavour to ſhew, how theſe Graſs-ſeeds, and Lucern-*ſeed, may be improved in the beſt Manner poſſible.* — Mr. *Switzer*, in his Monthly Book for *May*, at Page 145, ſays very judiciouſly, that Drilling of *Lucern* Seed is adviſed, by ſome, to be ſown in Drills, provided Inſtruments proper for Drilling and Horſe-houghing can be got (which, as he ſays, at preſent, it is much to be feared, are not ſo perfect as they ought to be) beſides, as he ſays, it will be a difficult Point for the Horſe-hougher to keep his Horſe and Inſtrument ſo exact, as that one or the other ſhall not wound or bruiſe the Roots or Stalks of the *Lucern*; and even then, alſo, the Rows muſt be weeded, and ſet out by the Hand-hough, which is another Trouble. This Mr. *Switzer* was very right in; and, therefore, as a Plough is too large an Inſtrument, in his Opinion, and mine, to ſupply the Houghing-part, as it ſhould be, the *Dutch* Hand-hough has been invented, and is now made Uſe of, for Houghing between Drills of Graſs-ſeeds, as an Improvement on the very ingenious Mr. *Tull*'s Works: And, for this Purpoſe, I recommend, in *the Concluſion*, a young Man, who is a great Maſter of the Drilling-huſbandry, as having ſowed both Corn and Graſs-ſeeds in this Manner in Drills, out of the Drill-plough, at a Foot aſunder; and, by keeping the Intervals afterwards clean houghed, from Time to Time, with the *Dutch* expeditious Hand-hough, the Owner will have the biggeſt of Crops of Tyne Graſs, or Lady-finger Graſs, or *Lucern* Graſs, without the Help of Manure, for Years together. In *July*, 1743, I was in a Field of *Lucern*, thus ſowed and managed, Knee-high; and ſo may theſe two natural Graſs-ſeeds be made to produce, the very ſame Summer, after they are ſowed

in the Spring-time, as large Crops as ever were ſeen, if the Seaſon, or Weather, prove favourable; which cannot be ſaid, when *Lucern*, or theſe Graſs-ſeeds, are ſown in the common Broad-caſt Way. Once more, the young Man, that I ſo ſtrenuouſly recommend, is the more fitting for a Gentleman, becauſe he underſtands Gardening, as well as Farming; and what an Incredible Improvement muſt that be, to have Corn and Graſs growing in Drills, made a Foot aſunder, every Year, without the Charge of Dung or Manure? But more, when I ſay, Corn may be ſown ſeven Years together, and great Crops got from the ſame, in the ſame Field, without any Dung or Manure; which is certainly true, as I ſhall make appear more plainly hereafter. Sure, if Gentlemen love the greateſt Improvements, they would not grudge to encourage ſuch an ingenious, laborious young Man; for it is certain greater Policy to ſtudy how Work may be done well, than to ſave a little Wages, and have it done ill; for an ignorant and ſlothful Servant will but deceive the Work, and the Maſter with it. If any Perſon pleaſes to come to me, I can make the Drilling Particulars appear by ocular Demonſtration.

THE

CONCLUSION.

THere is a young Man, now about one and twenty Years of Age, that I have recommended to two Services; in the firſt, he lived a chief Servant and managed a large Farm, under a Gentleman, his Maſter, till he died. Upon this, I recommended him to a ſecond Service, at a great Diſtance from the laſt, where he now is; and from whence he writes me Word, he is reſolved to ſtay no longer in it, than till *Michaelmas*, 1743, when he quits it; and, at that Time, will be ready to ſerve any other Gentleman, as his Bailiff, or chief Servant, becauſe the Soil is ſuch, where he now lives, that he cannot make Uſe of the Drill-plough, which he has experienced, and well underſtands; and, as he cannot make any great Improvements here, to his Credit, he will not continue in his preſent Service: This, therefore, is to acquaint any Gentleman, that may have Occaſion for ſuch a young Man, who underſtands how to perform all Manner of Plowing, Sowing of Seeds, Mowing and Cutting down all Manner of Corn, and Graſs, and Trees;

Trees; plant new, and plaiſh old Hedges, in great Perfection; clean, and ſell Corn, &c. and is truly honeſt and diligent, as will be certified, he writes me Word, by his preſent Maſter; he likewiſe writes, and can keep Accounts.

FINIS.